COMMERCE AMERICA
FORMERLY COMMERCE TODAY

U.S. Department of Commerce / August 16, 1976

The Research Associate:

Catalyst For INDUSTRY/ GOVERNMENT COOPERATION

Newsmemo

How to curb or counteract rising health care costs? Public comments on this much-discussed problem are being sought by the Council on Wage and Price Stability, which will hold a series of hearings about it. The Council has expressed concern about the potential impact of the problem upon individual households, labor, industry and government, especially since many experts predict inflation in this sector will continue to be worrisome.

American men of retirement age are now heavily outnumbered by women. At present there are 69 males for every 100 females in the 65-and-over age group; only 40 years ago the numbers were about equal. Among blacks the ratio is 73 to 100; for Spanish-origin people the margin is narrowed to 87 males per 100 females. The new Census Bureau study presenting these figures states that the relative importance of hereditary and environmental factors in this situation is unknown, but there is strong evidence back of a biological basis for the difference.

The pesticide industry is facing increasing regulatory problems. A recent study indicates that 40 percent of current research costs are going for "defensive" efforts to meet new regulations, and that this figure could go as high as 80 percent. This could force many smaller manufacturers out of business. Meanwhile patent protection on key pesticides is expiring—40 important pesticides are losing such protection soon, six in 1976—causing a competitive scramble in some hitherto lucrative markets. Despite these problems, the pesticide market is expected to grow from $1.9 billion in 1974 to $3.3 billion in 1984.

Noise control at U.S. workplaces can mean upwards of $10.5 billion in capital outlays. The estimate is by the Occupational Health and Safety Administration. Latest OSHA requirements would set the acceptable noise limits at 90 decibels, where they are now, but require monitoring and hearing tests when levels top 85 decibels. The $10.5 billion figure relates to the 90-decibel standard; monitoring and hearing tests could add $241 million by OSHA estimates. Noise controls have a particularly severe impact on the textile industry.

The dollar gain in ad revenue in 1976 will be the biggest ever recorded. The estimate of $32.4 billion by "Advertising Age" for this year's total figure compares with $28.3 billion for 1975. Political announcements, the Bicentennial, the Olympics, and the general economic improvement have contributed to this upturn. The rise is significant for most media. Newspaper linage has returned to pre-recession levels, and magazine and trade publication pages are ahead of previous highs set in 1973.

The broadcasting industry's revenues are up markedly this year. Income in the radio-TV field has risen steadily in a range of 8-10 percent annually over the past 30 years, despite intermittent recessions. Spurred by the factors noted above, with further plusses from increased rates, the radio-TV revenue picture for the first five months of 1976 shows a gain of 20 percent over the comparable 1975 period. An overall 1976 gain of 15-20 percent is now foreseen.

That was car No. 5,000,000 that rolled off a U.S. assembly line on July 21. It's a sign of the 1976 upturn in the domestic auto industry. In 1975 the five-millionth car was produced about three months later. Also, the June total of truck deliveries was the third highest on record, exceeded only by the totals for March and May of 1973. Meanwhile the import car competition lags, with import stocks reaching an all-time record of 605,990 units awaiting buyers on June 30.

Get ready for metric measurement in fibre boxes. The Fibre Box Association is proposing uniform metrication in this field. Although the proposal is not expected to be implemented immediately, it will eventually have broad impacts on industry. The proposal also has weight and strength provisions. It would achieve greater domestic product consistency, allow for superior use of linerboard, and provide a more logical series of grades for corrugated containerboard. Substantial economies within the fibre box industry can result, and the international position of U.S. fibre box products can be improved.

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COVER: Technical employees of private industry are currently involved in 21 different research projects making use of the elaborate facilities at Commerce's National Bureau of Standards. They are Research Associates and the story of what they're accomplishing begins on page 4.

U.S. DEPARTMENT OF COMMERCE

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Improving Market Factors May Boost Slow Pace Of Housing

Economic Highlights is prepared by John W. Kendrick, Chief Economist of the Department of Commerce with staff economist Thomas W. Kraseman.

John W. Kendrick

The recovery in housing has been moving at a relatively slow pace so far this year following the rapid rebound in 1975. From the first quarter of 1975, the recession low, to the fourth quarter, starts increased at an annual rate of a little more than 50 percent. The rise through June of this year has been at an annual rate of only 10 percent, bringing the level to an annual rate of 1,430,000 in the second quarter. If this rate of increase continued in the second half, starts for the year would be only 1,450,000 compared with forecasts that ranged as high as 1.7 million. There is evidence, however, that the rate of increase will accelerate in the second half, mostly in the multi-family sector, although not sufficiently to fulfill the more optimistic predictions for the year.

Starts of single-family homes have shown considerably greater strength than the apartment and condominium catagory. They declined much less in the recession and rebounded more strongly in the recovery (Charts 2 and 5). By the second quarter of this year, single-family starts were only 17 percent less than their peak annual total in 1972, while multi-family starts were down 68 percent.

The construction of apartment buildings for either the rental or sales markets depends basically on the prospect for profits. The data in panel 4 provide an indication of the trends in profitability in recent years. In the early 1970s, cost increases were fairly moderate and generally were in line with the rises in rents; vacancy rates (Chart 6) were relatively low. Construction money was readily available from banks and real estate investment trusts. Under these conditions, starts rose sharply. But in the severe inflation of 1973 and 1974, cost increases ran far ahead of increases in rents. Although starts were cut back drastically beginning in the first quarter of 1973, completions of projects continued very high for more than a year, resulting in a severe glut. Vacancy rates rose sharply, especially for condominiums.

Since about the middle of last year, however, there has been a marked improvement in the supply-demand relationship, as indicated in the charts. Cost increases are now much closer to the rises in rents, so that profitability has improved. Vacancy rates have come down, although for condominiums they are still relatively high, and the percentage of new apartments rented within three months has risen sharply. In addition, the rate of completions of new apartment projects has fallen markedly.

These favorable developments have already induced a moderate recovery in apartment starts, mostly in the second half of 1975. Following a setback in the first quarter of this year, the uptrend appears to have resumed. The improvement in the underlying situation suggests that this moderate rate of advance should continue or even accelerate in the second half.

The trend in single-family housing starts appears to depend fundamentally on how many prospective home buyers can afford the mortgage payments on the new houses offered on the market. Chart 1 shows mortgage payments, at the current rate of interest and the current price of new homes, as a percentage of average household income after taxes. Important changes in the trend of housing starts since 1970 have coincided rather closely with changes in this percentage of payments to income, as the charts show. This year's slackening of the rise in single-family starts appears to be related to an upturn in the percentage beginning late last year.

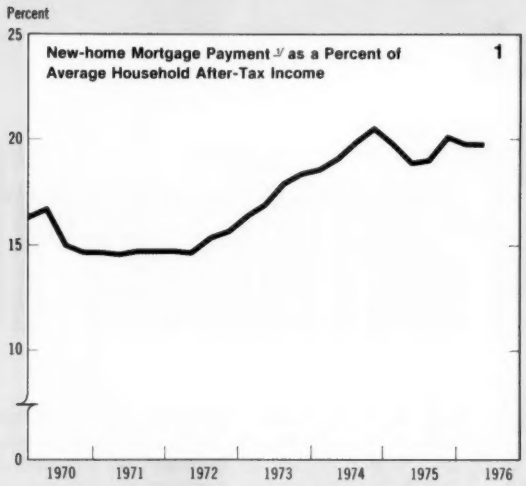
The size of the average monthly mortgage payment depends, of course, on both the going rate of mortgage interest and the average price of new homes. Over the years, these have tended to move together, since both are influenced by the basic rate of inflation. Since mid-1975, however, the increase in mortgage payments has stemmed far more from an increase of prices of homes than from changes in mortgage interest rates. Mortgage interest rates have fluctuated within a fairly narrow range, rising somewhat last fall and then receding to last year's low point in May before turning up moderately in June and July.

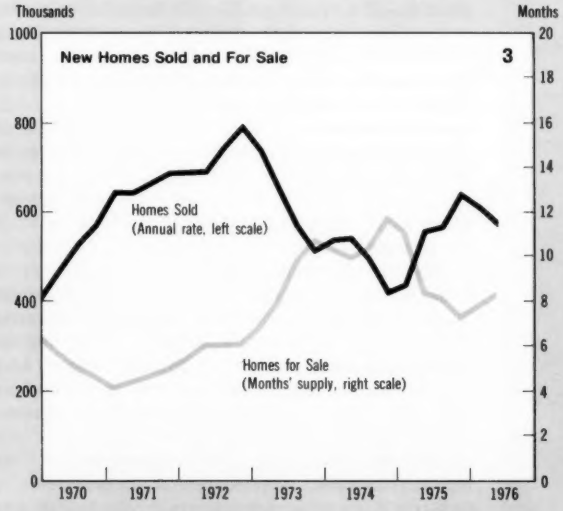
After nearly a year of comparative stability, new-home prices rose at an annual rate of 26 percent from August last year to March this year. The sharp rise moderated in the second quarter, however. This slackening, combined with stability in interest rates, offers at least the hope of a more moderate uptrend in mortgage payments and consequently a stronger gain in single-family starts later this year.

A basic determinant of the trend in mortgage interest rates in the short run has been the net volume of savings flowing into savings and loan institutions. The savings flow, in turn, depends primarily on changes in the interest rates offered on competing savings instruments—chiefly those on shorter-term Treasury securities. These rates are quite volatile, while those offered by savings and loan institutions are relatively inflexible because of legal ceilings and because the average interest rate on their mortgage portfolio changes only slowly over time.

In 1973 and 1974, tightening monetary policy in response to severe inflation pushed Treasury bill rates to record highs—over 9 percent in late 1974—and consequently, the net flow of savings into savings and loan institutions was almost choked off. Mortgage interest rates rose very sharply and housing starts fell steeply. Conversely, the subsequent drop in bill rates and their relatively low levels throughout 1975 facilitated a record net flow of money into savings and loans—$30 billion for 1975 as a whole. It was this money which largely financed the year's sharp recovery in housing starts. The savings flow is still very large, although it tapered off somewhat between January and June, and commitments for mortgage lending are very high. It would appear that there are sufficient funds to finance a sizable further increase in housing starts. The large supply of funds should also serve to restrain mortgage interest rates.

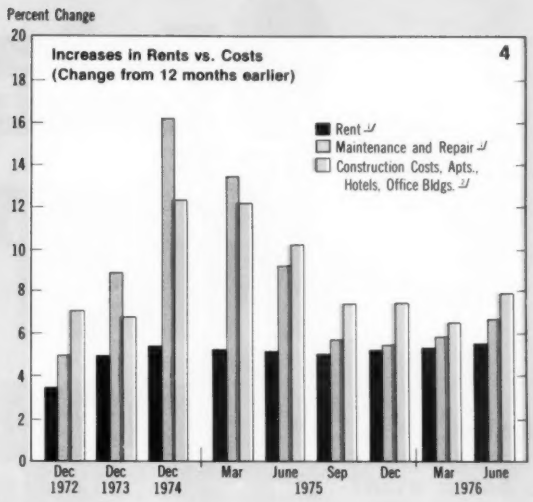
The Single-Family Home Situation

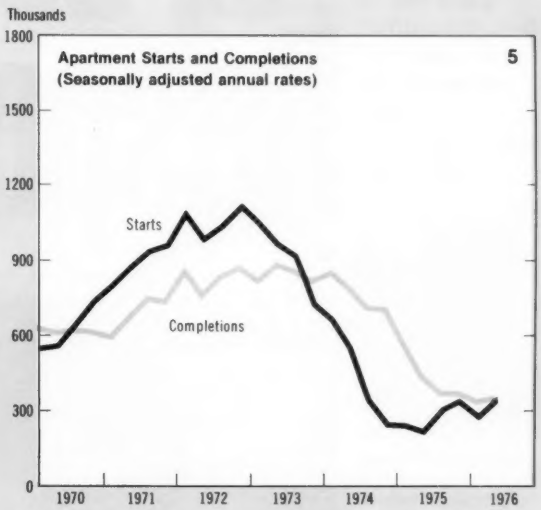


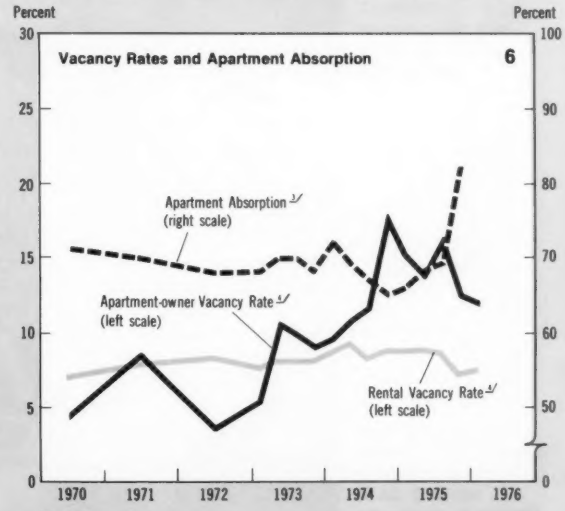


1/At current average new-home price and mortgage interest rate.

The Apartment Situation







1/From Consumer Price Index.
2/Boeckh Index.
3/Percent of new rental apartments rented within 3 months.
4/Apartments in buildings with 5 or more units.

The Research Associate:

Where Familiarity Breeds Respect

Just as exchanges of people can improve relations between countries, assignments of employees are leading to increased understanding between business and government in this country.

The Research Associate Program at Commerce's National Bureau of Standards is helping to build this understanding by allowing U.S. firms and business associations to send technical employees to use the elaborate facilities at NBS laboratories in Boulder, Colorado, and Gaithersburg, Maryland.

The program enables scientists and engineers from the private sector, both domestic and foreign, as well as state and local governments and occasionally the academic community, to work on a full-time basis for specified periods at NBS on projects of mutual interest to NBS and the sponsor.

The base criteria for a program are simple: it must have nonproprietary objectives; it must be within the scope of NBS activities and interests; and it must offer the prospect of publishable results of interest and significance to the industrial and technical communities represented, and thus ultimately to the public.

The programs start when convenient to both parties and may last from a few months to several years. They may be staffed by one or many Associates. The American Dental Association research unit, something of an unusual case, currently has 22, including physical chemists, ceramists, metallurgists, dentists, crystallographers, a mathematician, and supporting personnel.

A Research Associate must have appropriate academic background and sufficient experience to perform independent research in the field covered by the program. The sponsor and NBS must agree on the associate's qualifications and acceptability for the assignment.

"My experience here is going to prove very valuable to my company when I return," says Alma Coats of Hooker Chemical. "This definitely needs to be an ongoing program, because of the improved technology that's developing all the time. I'm going to make a firm recommendation to my company that they continue to make use of this program by sending someone else here after I finish."

"The facilities here are so much better," says Randall Lawson, a Research Associate from the Gypsum Association who is trying to devise a test measuring the fire-resistive properties of gypsum board products. "Also, the quality of the staff is excellent. There's a much broader range of techni-

Alma Coats is a chemist with Hooker Chemical currently working as a Research Associate for the Society of the Plastics Industry.

cal knowledge available here than you would find in any industrial research situation."

"The equipment and people that are available here can't be duplicated anywhere else," says Alan Meierhofer of the Manmade Fiber Producers Association, who is trying to establish the fire hazard potential of the different apparel fibers. "It was somewhat of a transition at first, learning the government's way of doing things, but it's worked out quite nicely."

"The task of developing standards for consumer products is very difficult, and both industry and government are faced with serious problems in this area," says Joe Dort of Sears, Roebuck. He is trying to develop tests to accurately predict the service life of small appliances. "Lab tests are difficult to relate to actual use by consumers, since the amount of time an appliance is operated and the treatment it receives varies from user to user. We're trying to devise tests that come as close as possible to the reality of actual use and abuse by a consumer."

The advantages of having a company scientist or engineer working on non-proprietary matters (research that will not be held secret) at NBS have attracted more than 400 companies and trade organizations and some 1500 individuals to the Bureau since the program began in 1920.

Some of the advantages are obvious. There is the use of the NBS computer and libraries, the laboratories and special research facilities that are difficult to match anywhere else. There is the advantage of working with the NBS staff, which includes many scientists of recognized importance in their fields.

A Research Associate remains the employee of the sponsoring organization. His employer pays his salary, fringe benefits and travel, and makes arrangements as necessary for temporary relocation of the Research Associate for the period of his assignment to the program.

"As to salary level there are no requirements," says Peter R. de Bruyn, the NBS liaison officer who coordinates the program. "But we do suggest that they be comparable to the levels of the people they'll be working with. That way nobody feels any resentment about different compensation for doing essentially the same job."

The sponsors also pay for any special supplies or services required by their associates, such as computer time, unusual or expensive materials, or the use of technician assistance, just like any NBS unit would.

NBS provides, at no cost to the sponsor, technical supervision, office and laboratory space, routine supplies and services, and the use of available research equipment not normally subject to time or usage charges.

"Everybody carries his share of the load and everybody benefits," says de Bruyn.

Each memo of agreement setting up a research associate program assigns a specific NBS supervisor to each associate, assuring the sponsoring organization that their employee will not fall between the cracks, and will know where to turn with problems.

"Many of these associates are people on whom the company has had an eye for some time as potential comers, and quite a few of them come home to promotions. Consequently, especially in firms that have continuing programs or have run programs in the past, these assignments tend to be looked on as a plus and the competition for them can get pretty intense," says de Bruyn.

"They also value the acquaintances they make among their contemporaries—both the other associates and the government specialists they work with—which will prove useful later."

A recent listing contained 21 projects currently in progress, with 5 of them, involving Research Associates, dealing with problems associated with fire. Why the emphasis on fire? There are probably many reasons, but almost certainly one of them is the fact that it is possible at NBS to conduct full scale "burns" of rooms and vehicles inside a 6,500 cubic meter test chamber—a facility that most companies do not have.

Other associates are studying the impact resistance of eyeglass lenses, the criteria for performance of automatic data processing systems, the measurement of paper characteristics, energy conservation in mobile homes, and dental materials.

Found a home

Many firms run a succession of programs, usually of about two years duration. Armstrong Cork has had at least one associate here for the past 40 years.

The longest-running association on a continuing basis is with the American Dental Association, which dates back to 1929. This association has

. . . the advantages are obvious. There is the use of the NBS computer and libraries, the laboratories and special research facilities . . .

Dentist Dr. George Paffenbarger is a Senior Research Associate representing the American Dental Association.

Work on consumer product technology is just beginning . . .

produced more than 600 publications, including books, reports and articles in various professional journals.

There are other places, of course, where this work could be done, but, notes Dr. George Paffenbarger, senior research associate of the ADA unit, "In no instance would the ADA have the facilities, or expertise, or large laboratories such as are available here at the National Bureau of Standards."

"Thus far there's been a very minimum of trouble," reports de Bruyn. "The thing's been running for more than 55 years without becoming ossified, which is more than you can say about many programs, in or out of government. This program has been climbing steadily since 1970. We're pleased, and a little bit puzzled, because it's all happened during a period when everyone was crying that they were 'research poor' and firms were generally lowering their research goals."

"Actually, I've got one of the easiest sales jobs in the world. I'm trying to sell people something they've paid for already—with their taxes. These facilities are available and waiting for them.

"This program is open to all; our problem is getting the word around.

"It takes a while to convince scientists that you're going to represent them and their capabilities correctly. The steady increase in the number of calls I receive from technical people around the Bureau, suggesting areas that might prove promising for a research associate project, is the best evidence to me that the program has really caught on.

"We're not in competition with private labs. What we offer is an unbiased source that everyone's willing to accept. All of the results of the program are published, and industrial labs can then pick up the technology that has been developed and profit from it.

"In some cases, it could even ultimately provide the basis for an entirely new industry.

"New measurement technology is the end product. What has evolved from the program to date? Among other things, a new Standard Reference Material for steels based on work done by a U.S. Steel Research Associate. And, through the contribution of a Research Associate sponsored by IBM, a secondary standard computer amplitude tape is now available to industry as a regular Standard Reference Material.

"What each associate is seeking is a new measurement procedure in a highly specialized area, that will be acceptable to everyone in the field. They're looking for a test that you can plug every piece of a particular material into. Since both industry and government have had a hand in it, these associations usually result in very rational standards that protect the public interest without hindering industry.

"The results are available to all. We want everyone to use our stuff. For example," de Bruyn goes on, "John Robertson was a research associate from Dow Chemical. He brought ten years of experience in the energy conservation field to NBS. He'd been dreaming up ways to conserve energy years before any of the rest of us even dreamed about an energy crisis. Well, John put his decade of experience into our *Energy Conservation Program Guide for Industry and Commerce,* a guidebook especially designed to help smaller and medium-sized firms get a handle on their energy problem. That was an extremely generous contribution by one firm to all of industry."

The Atomic Industrial Forum's agreement calls for research into measuring techniques for radioactive pharmaceuticals, an area which is "pretty crucial to the public that the situation is properly handled," de Bruyn points out.

The National Microfilm Association sent a Research Associate to NBS with a major problem: the microfilm on which the Library of Congress was preserving the nation's priceless documents had, unaccountably, started to deteriorate. The problem was traced to a gas evolving from the cardboard storage containers. Substituting stainless steel containers solved the problem.

However, not all Research Associates produce such dramatic fruit. Nor are the solutions often that simple. "It's usually a matter of the data that's developed here ultimately filtering down to the public in the form of products incorporating it. Much of this material is significant scientifically, but very little of it has any dramatic one-shot impact," says de Bruyn.

A number of governmental agencies have used the program: In 1930 the Port of New York Authority sent specialists down to do some research relating to bridge towers, and in 1940 the Florida Citrus Commission did an analysis of citrus juices. Universities, too, occasionally make use of the program, such as the time Yale sent a technical team down to do optics research.

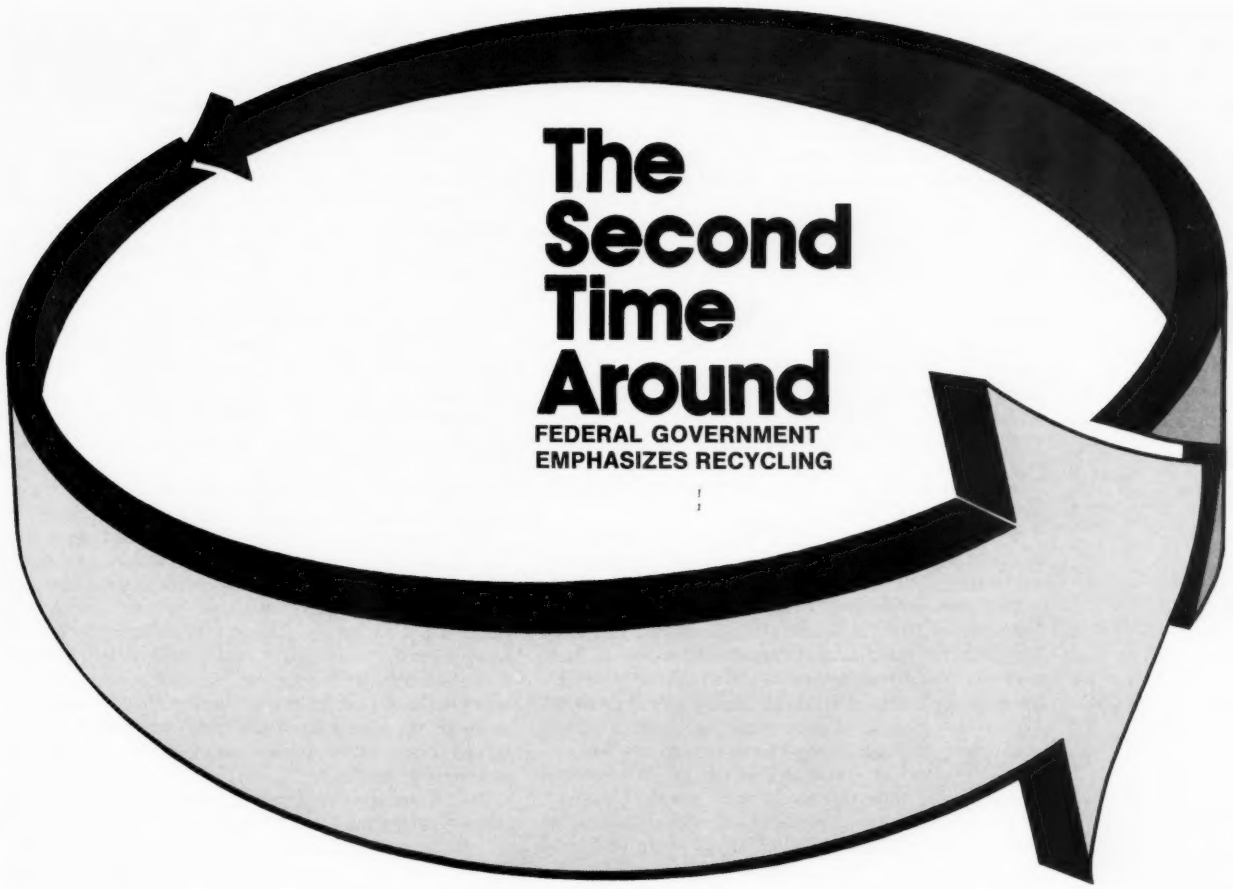
Work on consumer product technology is just beginning, and an associate from Sears, Roebuck has been assigned to NBS Gaithersburg headquarters since last November. Sometimes these agreements turn into two-way streets, with the government sending a specialist out to work in private laboratories. This has happened in the Sears case, with an NBS scientist being assigned to Sears under the provisions of the Federal Training Act. "He's learning how they do it in industry, which we need to know if we're going to deal with the consumer product problem realistically," says de Bruyn.

Research Associate Programs still have rather informal beginnings. The initiative may come from either industry or the Bureau, depending upon who first conceives a project that might be of interest to the other.

Representatives of a prospective sponsor get together with the appropriate members of the NBS staff at the invitation of either party to discuss the details of a potential program. De Bruyn works with them to establish a mutually acceptable project definition, statement of objectives, and work plan. Following this, with the assistance of members of the NBS legal, patent, budget and accounting staffs, he negotiates with the sponsor's management personnel a Memorandum of Agreement describing the program and setting forth the terms and conditions governing the relationship between the sponsoring organization and NBS.

To sum it up, "The Research Associate Program helps give each of us a mutual perspective as to what the others' problems are, says Sear's Joe Dort.

"If government and industry understand each other, they should be able to work out solutions that are beneficial to both, and eventually the public, because that's what it's all about." ☆



The Second Time Around

FEDERAL GOVERNMENT EMPHASIZES RECYCLING

Having drawn up a nationwide prescription for conserving energy through recycling, Uncle Sam is now taking his own medicine.

Specific Federal Government programs, according to a report to Congress by the Comptroller General of the United States, include:

- The General Services Administration, major purchaser for Federal Government agencies, has revised 86 specifications for paper-based products to require various percentages ranging from 3 to 100 percent of recycled fiber. (The specifications inform the potential contractors of the requirements necessary to supply the government with an acceptable product.) Procurements of more than $66 million have been made under the revised specifications. In addition, specifications for tires and plastic pipe were altered to permit the use of reclaimed materials at the supplier's discretion.
- The Department of Defense, another leading purchaser, is reviewing its existing policies concerning procurement specifications to determine what changes can be made to further enhance the use of recycled materials.
- The Environmental Protection Agency has issued voluntary guidelines and procedures to be followed by federal agencies for procuring products that contain recycled material. The guidelines also apply to products purchased by contractors when the government agency drafts the specifications.
- An Energy Policy and Conservation Act of 1975 was enacted requiring Commerce's National Bureau of Standards and the Federal Trade Commission to develop and issue test procedures for the recycling of used oil. The Act also requires that federal procurement policies be revised to encourage purchase of recycled oil for both military and nonmilitary use. Recycled oil is defined in the Act as re-refined or otherwise processed used oil or a blend of such used oil and new oil determined to be substantially equivalent to new oil for a particular end use.

The impact of federal procurement on the country's economic and social well-being is far-reaching. By taking a strong position, the government can not only bring recycled products into more widespread use but also help achieve the national goals of conserving energy and natural resources.

The Federal Government spends billions of dollars annually on supplies and materials. In fiscal year 1976, total government-wide spending totaled $41.764 billion, with Defense making $32.630 billion in purchases and General Services, $4.199 billion.

In addition to conserving natural resources, increased use of recycled materials will reduce the volume of wastes that would otherwise require disposal and, thereby, the cost of that disposal. By saving energy, it will help alleviate balance-of-payments problems and dependency on foreign sources of supply.

The National Commission on Materials Policy

. . . the government can not only bring recycled products into more widespread use but also help achieve the national goals of conserving energy and natural resources.

. . . The Committee sees the solutions obtained as setting an example for the rest of the country.

has estimated that about 2 percent of the total U.S. energy demand could be saved by the recycling of available steel, aluminum and paper. The Environmental Protection Agency reports that recycling could provide possibly 8 percent of aluminum, 7 percent of iron, 20 percent of tin and 14 percent of paper consumed annually.

Congressional concern for federal action to stimulate recycling was manifested in 1970 by passage of the Resource Recovery Act, which amended the Solid Waste Disposal Act. The Energy Policy and Conservation Act of 1975 sets forth actions that are to be taken by federal agencies to encourage and promote the use of recycled oil.

A year and a half ago, the Comptroller General issued a report to Congress citing three major issues affecting the economics of resource recovery which involve the Federal Government:

- Possible discrimination in freight rates for secondary materials;
- Taxes which favor the use of virgin materials over secondary materials; and
- Federal procurement policy which limits purchase of products containing recovered and recycled materials.

The Environmental Protection Agency believes that one reason the Federal Government has been hesitant to purchase recycled materials is that there is a lack of technical data on the performance of products containing secondary materials. While the Federal Government is a large single consumer, federal expenditures represent only a small fraction of combined industrial, commercial and personal expenditures in most areas. However, federal procurement specifications and practices are widely circulated and duplicated by state and local governments and some industries.

The General Services Administration is seeking a saturation point for content of reclaimed materials for each specification. This saturation point may be described as the level of reclaimed fibers that a product specification can require without increasing cost or limiting competitive bidding on the product. Once this point has been achieved, the specification will be permanently rewritten to reflect that level of reclaimed materials content. In the meantime, product specifications are deviated from for a given procurement period.

The agency emphasized the paper commodity area because research reports state that paper and paperboard constitute about 50 percent of all solid waste materials.

The Comptroller's report recommended that the Administrator of the General Services Administration:

—Emphasize the program to purchase recycled products with written policies and objectives, to earmark the program as a permanent and unified effort. The program should include a reporting system for data to monitor and track progress on the overall actual purchases of recycled products.

—Issue guidelines to insure a consistent effort in each commodity area to increase recycled material content in product specifications.

Most Department of Defense specifications are written so that a product must meet a performance or structural design standard rather than specifying material content. Although some purchases of recycled products have been made, the department has not developed a coordinated program for the procurement and use of recycled products or materials.

As a result of various research studies, the Defense Supply Agency has begun acquainting the refining industry with the various petroleum products the government purchases that are not restricted to use of virgin base stocks. Also, the Department of the Army has prepared a plan for developing specifications for an automobile engine lubricating oil containing re-refined stocks.

The Air Force is promoting the use of recycled construction materials in housing projects, and there are several military packaging specifications that require using recycled paper.

The Defense Supply Agency also procures textile materials containing recycled fibers (wool and cotton) from a commercial manufacturer for shipment to another commercial manufacturer for processing into final products—primarily military uniforms and blankets. Several of these textile specifications allow up to 35 percent and 15 percent recycled content for wool and cotton, respectively.

The Army Audit Agency recommended that the Army purchase retreaded tires in lieu of new tires to replace those not recappable in Army retread facilities. After considering all points, the Army decided not to, because there was no insurance that commercially recapped tires would meet federal specifications. However, if federal specifications were made a part of the procurement package, the government would have the same insurance as obtained from other procurement actions involving commercial items.

The Comptroller General's recommendations to the Secretary of Defense include:

—Issue policy guidelines for procurement of recycled products when cost, quality and other objectives can be met.

—Assign responsibility to a single group or office within Defense for coordination of research and other efforts to procure recycled products.

—Determine the feasibility of considering recycled product procurement within the Value Engineering program or the Directorate for Energy. The former is a program to seek out better and cheaper ways to purchase needed supplies. The latter was established in 1973 to concentrate on energy reductions and related matters.

The department has indicated that when engineering, testing and technological data are available to substantiate a change from virgin to recycled material without sacrificing price or performance standards, it will include provisions for such substitution in its specifications.

Another means by which federal agencies are making an effort to improve recovery of resources from waste materials and promote the use of recycled products is through the Interagency Committee on Resource Recovery that was established by the General Services Administration. The Committee is composed of representatives from federal agencies and is the focal point for coordination of resource recovery studies. It considers potential areas for joint endeavor, and advises on increasing the quantity and quality of federal resource recovery.

While the Committee only addresses problems within the Federal Government, it sees the solutions obtained as setting an example for the rest of the country. ☆

Energy Digest

DOUBLED EFFICIENCY . . . The Energy Research and Development Administration and the Pratt & Whitney Aircraft Group have signed a contract for the design of an industrial gas turbine to significantly improve the operating efficiency of oil-fired equipment used by utilities to generate electricity during "peak" periods of demand. Turbine engines are widely used in the U.S. by utilities for generating electricity during "peaking" periods of the day when the need for electric generating capacity is considerably above the normal "base load." Operating efficiencies of these turbine engines now average around 20 percent, meaning that about 80 percent of the energy in the petroleum fuel is wasted. The ERDA/Pratt & Whitney Program is expected to result in the design of a gas turbine engine which could also be combined with a steam boiler to recover waste exhaust heat. This would result in an efficiency of between 45 and 58 percent.

SPREADING THE WORD . . . The Franklin Institute Research Laboratories (FIRL) of Philadelphia and its subcontractor, Chilton Co. of Radnor, Pa., have contracted with the Department of Housing and Urban Development to promote the application of solar energy technology by the non-scientific community in the country. This includes builders, general contractors, community planners, zoning boards, building code officials, mortgage lenders, insurance companies, potential homeowners, and architects. The goal of the project is to shorten the time gap between the technical development and the widespread application of this environmentally clean, renewable energy source. FIRL will collect all existing literature and data on solar energy from both private and public sources, including ERDA and the HUD Solar Heating and Cooling Demonstration Program. Information will be entered into a central computerized data bank for dissemination to all potential solar energy users.

LOWER OPERATING LIMITS . . . The Nuclear Regulatory Commission staff has changed the operating limits in five nuclear power plants to assure compliance with criteria for the performance of emergency core cooling systems. Backup safety features are designed to provide water to cool the nuclear fuel should the normal water supply be unavailable. Combustion Engineering, Inc., the manufacturer of the reactor fuel for these five plants, has informed the NRC that as part of its continuing audit program several errors were found in the computer codes used for evaluation of the performance of emergency core cooling systems. The changes lower the maximum allowable rate of heat generation in the nuclear fuel, but the magnitude of the change is not expected to result in a reduction in the electrical power generated by the plants. The facilities affected are: Maine Yankee Nuclear Power Plant, Wiscasset, Maine; Millstone Unit No. 2, Waterford, Conn.; Calvert Cliffs Unit No. 1, Lusby, Md.; St. Lucie No. 1, Ft. Pierce, Fla.; and Ft. Calhoun, Omaha, Neb.

HIGH PRESSURE DEVELOPMENT . . . A new centrifugal compressor capable of reinjecting natural gas into geological reservoirs at pressures in the 8000-9000 p.s.i.a. range has been successfully developed, reports the Elliott Co. of Jeannette, Pa. "The design and development of this centrifugal compressor was a major state-of-the-art breakthrough," said Carl H. Geary, a development engineer with Elliott. The compressor was needed to reinject natural gas recovered from North Sea crude oil. Centrifugal compressors had never before been required to operate at such high pressure, according to Geary. The unit has been operating continuously since last September.

RECYCLING SURGE . . . One-fourth of all aluminum beverage cans sold in the U.S. in 1975 were returned, netting Americans $26 million for their efforts, cleaning up the country, and saving energy and other resources. The Aluminum Association, using Bureau of Mines statistics, reports that a record 3.9 billion all-aluminum cans—up 70 percent from 1974—were returned and recycled last year. Recycled into new cans and other aluminum products, the returned cans represent a significant energy savings because aluminum can be recycled for less than 5 percent of the energy needed to make virgin aluminum. Also, aluminum can be recycled indefinitely. The unusual growth in 1975 was largely the result of the high value of aluminum. Most can collection centers reportedly pay 15 cents a pound—about 23 cans—for aluminum. Copies of the Aluminum Can Center Directory, which lists location of these centers and information on aluminum can recycling activities are available free from the Aluminum Association, 750 Third Avenue, New York, N.Y. 10017.

Richardson Calls Energy Reliance 'Catastrophic'

COMMERCE SECRETARY STRESSES NEED FOR ENACTMENT OF ENERGY LEGISLATION

Secretary of Commerce Elliot L. Richardson has warned that a new oil embargo could be "literally catastrophic" and urged the enactment of a comprehensive energy independence program before time runs out.

Speaking before the International Platform Association in Washington, D.C., recently, Richardson called it "an unfortunate irony that as we celebrate the 200th anniversary of our hard-won sovereign independence, we so complacently indulge a process which day by day renders us more and more dependent on insecure foreign sources of oil. It is indeed remarkable that we would attempt to remember so well events now two centuries past, as we seem to forget the energy crisis which, as a matter of general perception, involves a history of barely more than two years.

"It is true, of course, that the effects of the Arab oil embargo, and the associated price increases, are not pleasant to recall. By February of 1974, crude oil imports were reduced to less than half their level at the time of the embargo in October of 1973.

"Gasoline stations curtailed their service. Gasoline lines lengthened. Tempers grew heated. Panic buying ensued. Fears of heating oil shortages spread. Interior temperatures dropped. For what now turns out to have been a fleeting moment, the word 'crisis' seemed to have meaning.

"And for the first quarter of 1974, according to Federal Energy Administration estimates, U.S. output fell by $10-20 billion, while unemployment increased by more than 500,000, as a result of the embargo.

"But however unpleasant it may be to recall these facts of the recent past, it must be very much more so to contemplate the effects of a new embargo. For, as a society, we have failed adequately to address the basic underlying problems.

"The share of U.S. imports from Arab oil countries has not decreased; it has increased from 22 percent before the embargo to 37 percent today. And the Organization of Petroleum Exporting Countries (OPEC) now provides 82 percent of our oil import needs—compared with 70 percent just prior to the embargo."

Richardson then cited the long term trend of increasing U.S. oil imports:

—In 1960, imports of 1.8 million barrels per day, or 19 percent of consumption.

—In 1970, imports of almost double that amount, 3.4 million barrels per day, or 23 percent of consumption.

—In 1975, imports of 6.0 million barrels per day, or 37 percent of consumption.

—This year, double the 1970 amount, with projected imports of 7.0 million barrels per day, or 43 percent of consumption—at an annual cost of $35 billion.

"If current trends continue—and if the President's energy program is not enacted," Richardson predicted, "imports could exceed 13 million barrels of oil per day in 1985.

"And if an embargo were imposed with import dependency at such a level, the results could be literally catastrophic. Even with one billion barrels in storage prior to the embargo, the economic consequence of a 50 percent effective embargo would involve a Gross National Product loss of more than $50 billion in the first year—and an associated loss of more than 1.3 million jobs. If storage were not adequately available, the GNP loss would increase to an annual rate of $170 billion—and the associated loss of jobs would be about 4.8 million.

"And indeed, if one considers the impatience which is characteristic of the American temperament, the prospect becomes even less attractive. The vying for limited resources domestically could become quite ugly. But, perhaps more seriously, it is reasonable to imagine that pressures would mount for a prompt international 'solution.'

"Some commentators, appreciating the potential for disaster, have argued that 'we have no national energy policy.' This conclusion is but a half-truth—and as such it distracts attention from what ought now to be the focus of public scrutiny and pressure with respect to the further development of national energy policy: the United States Congress."

The President's program has been presented in detail in the **Project Independence Report** and in the 1976 **National Energy Outlook.** According to Richardson, "It is a complex program—appropriate for the serious treatment of a complex problem. And it may well be that its complexity has hampered its effective communication."

Speaking of the ten points of the program, listed on page 11, Richardson stated that while considerable progress had been made under several of the headings, to achieve energy independence by the 1985 goal the policy must be implemented in its entirety.

"As we enter our third century since declaring our independence, we are somehow allowing ourselves the temporary comfort of ignoring this growing dependence. But to preserve our once-revolutionary independence—and to merit the congratulations we so easily offer ourselves in our Bicentennial enthusiasm —we will require what, in its own right, would approach a minor revolution: that serious problems be treated publicly with the seriousness they deserve; and that, consistent with such treatment, the Congress, promptly and responsibly, act."

Published Proceedings Of Energy Technology Conferences Available

Proceedings are now available from the 2nd and 3rd Energy Technology Conferences held in Washington, D.C., in May 1975 and March 1976 respectively.

The first conference concentrated on the major international activities in energy technology. Representatives from

Administration's Energy Policy

In simplified terms, the policy of the Administration can be summarized by the following ten points:

(1) To increase domestic production of energy resources, the Administration favors the maximum use of market incentives. Accordingly, we have proposed the deregulation of natural gas and oil.

(2) To further encourage domestic production of coal, oil and gas, we have resumed coal leasing, pursued outer continental shelf leasing, and sought the necessary authority to exploit the Naval Petroleum Reserves.

(3) To encourage the most rapid development of existing nuclear power technology, consistent with the dictates of safety, we have increased and accelerated nuclear research and development—particularly with respect to the problems of nuclear waste management. And to encourage the development of energy technologies for which private capital would not be available due to special problems of risk or scale, we have sought the authority for specially tailored incentives—as in the cases of our proposed synthetic fuels legislation and the Energy Independence Authority—while we continue to rely primarily on market-based incentives for most energy resource development.

(4) To foster the greater demand for coal, of which we have an abundant supply, and the associated conservation of oil and gas, of which our supplies are limited, we have favored the conversion of industrial and utility power plants from oil and gas to coal. Accordingly, because market forces alone would not yield the desired result, we have sought, and we have exercised, the authority to mandate such conversion.

(5) To encourage energy conservation, we favor the market incentives of equitably priced energy, along with complementary and supplementary inducements to the extent that these may be necessary and cost-effective. Accordingly, we have developed and implemented a successful voluntary industrial energy conservation program. We have also proposed and advanced the energy labelling of appliances and automobiles, and have sought legislative authority to establish mandatory thermal efficiency standards for all new homes and commercial buildings, to provide insulation tax credits for homes, and to provide weatherization assistance grants for low-income and elderly persons.

(6) To assure the efficient distribution of energy resources, we have supported legislation to expedite the construction of coal slurry pipelines and have proposed legislation to allow expedited development of the transportation system necessary to deliver natural gas from Alaska's Northern Slope.

(7) To assure the expeditious development of neergy resources and infrastructure while protecting environmental resources, we have proposed a balanced approach for energy impact assistance.

(8) To reduce the likelihood of a renewed embargo or of unacceptable oil price increases, we have pursued a balanced foreign policy in relation to the Middle East, we have commenced a process of modest diversification in our sources of supply, and we have sought to advance responsible dialogue among consumers and producers through the Commission on International Economic Cooperation.

(9) For the longer term, we have dramatically increased research and development on renewable energy resources—geothermal, solar and nuclear fusion—which must, in time, replace our limited supplies of fossil fuels.

(10) And to protect against the possibility that these efforts should prove inadequate, we have sought appropriate stand-by capabilities. Domestically, we are developing a strategic petroleum reserve and have developed detailed contingency plans for allocation and rationing. And we are following a similar strategy internationally, in cooperation with other developed consuming countries, through the new International Energy Agency.

the United Kingdom, Canada, Japan, West Germany, France, the Netherlands and Mexico summarized their countries' energy programs. U.S. government and legislative officials discussed different aspects of U.S. energy policy.

The latter conference, subtitled Commercialization, provided overviews from top government officials in energy R&D, plus key leaders from the other sectors of the energy field. Their papers analyzed the present energy situation, described what will happen in the future, and considered what must be done to accomplish these future goals. All aspects of energy are covered, including policy, new technology, and constraints on applications of energy technology.

The books are available at $25 each from Government Institutes, Inc., 4733 Bethesda Ave. NW., Washington, D.C. 20014.

COMPUTER HELPS IMPROVE ENERGY USE IN YOUR HOME

We may not think of computers as creative—but a computer program developed at Commerce's National Bureau of Standards (NBS) is helping engineers and architects design more energy-efficient buildings.

The comprehensive, easy-to-use program is contained in a 398-page document, *NBSLD, the Computer Program for Heating and Cooling Loads in Buildings*. It is based upon extensive information accumulated over the past decades in various phases of building heat transfer problems, and is intended to be used for the design of equipment and air conditioning systems as well as for estimates of building energy requirements.

The program covers some 300 variables in three categories: the weather, the building and the way the building is operated. The computer output is presented in the form of a profile of heating and cooling loads on an hourly, daily, weekly, monthly or yearly basis.

The publication can be ordered for $4.60 from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Please use order number C13.29/2:69.

Symposium To Examine Thermal Comfort Of People

How energy conservation measures and new building designs affect the comfort of people who live or work in them is the subject of a symposium next February at Commerce's National Bureau of Standards.

The Symposium on Thermal Analysis—Human Comfort—Indoor Environment will bring together leading scientists, engineers, government officials, architects, physiologists and manufacturers. They will discuss how new energy conservation modifications to buildings will affect thermal comfort of people and what type of measurement technology will be required to assess these effects.

Some of the practices have no effect on the thermal comfort of occupants. However, others, such as limiting the use of heating, ventilating and air conditioning equipment, lower thermostat settings in winter, higher settings in summer, may have an adverse effect on occupants.

Additional information may be obtained from the symposium cochairmen: Dr. B. W. Mangum, B122 Physics Bldg., National Bureau of Standards, Washington, D.C. 20234 (301-921-2098) or Dr. J. E. Hill, B104 Building Research Bldg., same address (301-921-3512).

SINGLE FAMILY HOMES IN 10 STATES ELIGIBLE FOR SPECIAL ENERGY HELP

More than 6.7 million single-family-homeowners in ten states will have the opportunity beginning September 1 to participate in a joint Federal/State Home Energy Savers' Program. Different approaches by state energy offices to encourage homeowners to make energy conservation improvements will be tested.

Participating states are: Connecticut, Illinois (10 northern counties), Maryland, Nebraska, New York (Chautauqua County), Ohio, Rhode Island, South Carolina, Tennessee and Utah.

A wide variety of Federal Energy Administration (FEA) technical and financial information will be provided through the states, enabling homeowners to evaluate and improve the energy efficiency of their homes.

Nearly 80 percent of the nation's 47 million single-family homes are inadequately insulated, according to FEA estimates. Home heating and cooling in all of the country's single-family residences account for 12 percent of total national energy use. Homeowners who take simple corrective actions such as those being recommended in the ten-state program, to increase the thermal efficiency of their homes, could save as much as 15 to 30 percent of their fuel bills.

The major elements in the state programs will be a telephone hotline, a home retrofit "How To" course, and an FEA-supplied *Home Energy Savers' Workbook*. State energy offices will provide the workbook to homeowners seeking detailed information on how to conserve energy in the home. The training courses will be given by volunteers and will include instructions on how to perform an energy audit of the home. Information will also be included as to how a homeowner can make any necessary home energy-saving improvements, either by himself or with the assistance of a contractor.

State media efforts publicizing the program will vary in content, ranging from local information and distribution centers, direct mailings, and workshops, to speakers bureaus, information booths at county and town fairs and trade shows, payroll stuffers, and awards by Governors.

Two other states, Massachusetts and New Mexico, were selected by FEA earlier this year to participate in PROJECT CONSERVE, a computerized cost and savings system involving a brief questionnaire sent to all single-family homeowners. Participating homeowners then receive an analysis of their home's thermal characteristics and up to five recommendations for home improvements. Massachusetts has the program well under way with 135,000 participants as of mid-June. New Mexico will start in September.

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Changes Wouldn't Improve Flow Of Funds To Small Technology-Based Firms

The flow of investment funds to small, technology-based firms might be increased by as much as 10 percent by changes in tax or securities regulations, or by loans and investment guarantees to the suppliers of those funds.

But direct government investment in these small firms may only displace private funds rather than increase the total flow of capital funds.

These are among the major conclusions of a comprehensive analysis of the venture capital market performed for the National Bureau of Standards' Experimental Technology Incentives Program.

The 18-month study for the Commerce unit found no flaws in the venture capital market that restrict the flow of funds to small technology-based firms. The venture capital market is defined as any source of funds supplied to these firms, and may include banks, private or public venture capital firms, small business investment companies, insurance companies or pension funds.

The study found no indications that these small technology-oriented firms with assets less than $5 million paid higher interest rates or returned more to their shareholders than other small firms. Nor do the venture capitalists earn higher profits than could be earned by investing in stocks or bonds.

Between 400 and 600 firms are active in the venture capital industry, and they supplied between $75 and $100 million annually to small technology-oriented firms in the late 1960s and early 1970s.

Reducing the tax rate on capital gains from 35 percent to 25 percent would increase the flow of funds to these firms by "at most" 10 percent, the study estimated.

Copies of the executive summary of the study, *An Analysis of Venture Capital Market Imperfections*, are available from Gregory C. Tassey, Room A735, Administration Building, National Bureau of Standards, Washington, D.C. 20234.

'STAR' AWARD PRESENTED TO FOOD AND DAIRY GROUP

The "STAR" award is born: Commerce's United States Travel Service (USTS) has presented its first "STAR" (Special Traveler Arrangements Recognition) to the Dairy and Food Industry Supply Association for its efforts in promoting and facilitating international attendance at a trade show.

The Association, headquartered in Washington, D.C., is hosting the Food and Dairy Expo '76 in Atlantic City, October 10-14.

The "STAR" award is open to any trade show organization that makes available: foreign language brochures describing its event, an international reception center at its trade show staffed by bilingual personnel, free or reduced show registration or admission for international attendees, and foreign currency and travelers check conversion facilities.

In addition, the trade show organization must make available to those attending from abroad any two of the following:

- temporary foreign language secretarial assistance;
- guided technical and plant visits;
- local travel and sightseeing assistance;
- free or reduced rate catalogs.

The organization may place an advertisement in a newspaper abroad as a substitute for one of the above.

USTS assists organizers of "STAR" trade shows in the promotion of international attendance by distributing brochures and information abroad through USTS field offices in six nations and through the commercial officers at U.S. diplomatic and consular offices.

FIRST USTS 'STAR'—*The Dairy and Food Industry Supply Assn. is the recipient of United States Travel Service's first "Star" award for promoting and facilitating international attendance at its trade shows. Here, George Weigold briefs linguists in the international lounge at the Food and Dairy Expo '72.*

These overseas agencies, using the information provided by USTS, then promote the trade show through their contacts with local businessmen, tour operators and media representatives.

"Recognizing trade shows that provide special services for international attendees is part of USTS' program to internationalize as many qualified U.S. trade shows as possible," Assistant Secretary of Commerce for Tourism Creighton Holden pointed out. "By increasing the number of international businessmen coming to our shores we increase foreign exchange earnings, thus decreasing the U.S. travel dollar balance deficit."

Organizations promoting trade shows of interest to international visitors able to meet the criteria should contact USTS' Conventions and Expositions Division, Department of Commerce, Washington, D.C. 20230.

U.S. Travel Dollar Deficit Down Slightly In 1975

Americans spent $3.13 billion more traveling abroad in 1975 than international visitors spent in the United States, according to the latest data from Commerce's Bureau of Economic Analysis. This was a decrease of less than one half of one percent over the 1974 figures, considerably smaller than had been expected. Commerce's United States Travel Service had projected a decline in the travel deficit of more than 10 percent, based on preliminary data.

International tourist receipts in the United States totaled $5.67 billion in 1975, while expenditures by Americans traveling abroad reached $8.80 billion.

Significantly, the U.S. travel dollar balance with respect to Canada was in surplus by $255 million, the first such favorable balance in more than a decade. A deficit of $147 million was recorded with respect to Mexico. Canada and Mexico are the major generators of international visitors to the USA.

The U.S. travel accounts with Western Europe continued to reflect negative balances in 1975. The travel accounts with South America and Japan, however, showed balances favorable to the United States.

The amount U.S. travelers paid to foreign carriers for transportation abroad increased 18.3 percent over the 1974 level. Conversely, the amount international tourists paid to U.S. flag carriers for transportation to this country decreased 2.6 percent in comparison with 1974. These two factors were major contributors to the slower-than-projected rate of decline in the travel deficit.

Long Island Association Publishes Business Guide

Residents of Long Island, N.Y., can fight City Hall—or compliment it—with the aid of the *Long Island Businessman's Guide to Public Officials 1976.*

The Guide is published annually by the Long Island Association of Commerce & Industry. It lists U.S. senators and representatives, state government officials and legislature, county elected and appointed officials as well as departments of public services, cities and towns on Long Island and their officials, and a page of correct salutations for addressing public officials.

Copies are available from the Long Long Island Association of Commerce & Industry, 131 Jericho Turnpike, Jericho, L.I., N.Y. 11753 (516-333-9300).

PATENTS ISSUED TO U.S. RESIDENTS

Calendar Year 1975

States and Territories	Patents	Plants	Designs	Total	One To Every	States and Territories	Patents	Plants	Designs	Total	One To Every
TOTAL	**46,603**	**124**	**3,428**	**50,155**	**4,216**	Mississippi	105	0	1	106	21,915
						Missouri	637	0	61	698	6,788
Alabama	230	0	20	250	14,360	Montana	51	0	3	54	13,741
Alaska	41	0	1	42	7,762	Nebraska	134	0	11	145	10,586
American Samoa	17	0	2	19		Nevada	90	0	8	98	5,959
Arizona	436	0	51	487	4,511	New Hampshire	170	0	12	182	4,467
Arkansas	78	1	5	84	25,071	New Jersey	3,721	4	184	3,909	1,865
California	6,213	54	513	6,780	3,082	New Mexico	114	0	3	117	9,667
Canal Zone	6	0	1	7		New York	4,468	1	440	4,909	3,686
Colorado	546	0	54	600	4,147	North Carolina	514	1	43	558	9,586
Connecticut	1,515	1	161	1,677	1,837	North Dakota	37	0	1	38	16,368
Delaware	482	0	8	490	1,171	Ohio	2,934	16	229	3,179	3,380
District of Columbia	84	0	5	89	7,955	Oklahoma	677	1	39	717	3,743
Florida	974	10	77	1,061	7,790	Oregon	326	2	26	354	6,458
Georgia	343	1	32	376	12,971	Pennsylvania	3,416	0	122	3,538	3,340
Guam	4	0	0	4		Puerto Rico	22	0	2	24	
Hawaii	61	0	2	63	12,794	Rhode Island	173	1	40	214	4,313
Idaho	102	0	9	111	7,333	South Carolina	244	0	7	251	10,948
Illinois	3,677	11	267	3,955	2,803	South Dakota	41	1	4	46	14,717
Indiana	1,069	5	65	1,139	4,655	Tennessee	362	0	29	391	10,655
Iowa	346	2	38	386	7,433	Texas	2,096	3	147	2,246	5,380
Kansas	321	0	50	371	6,038	Utah	208	0	30	238	5,050
Kentucky	316	0	23	339	9,914	Vermont	78	0	4	82	5,744
Louisiana	376	0	16	392	9,574	Virginia	619	1	51	671	7,177
Maine	66	0	2	68	15,426	Virgin Islands	11	0	1	12	
Maryland	972	0	32	1,004	4,035	Washington	513	0	40	553	6,313
Massachusetts	1,945	0	93	2,038	2,858	West Virginia	141	0	1	142	12,690
Michigan	2,588	4	169	2,761	3,311	Wisconsin	881	2	95	978	4,709
Minnesota	985	2	93	1,080	3,632	Wyoming	27	0	5	32	11,563

California Led Invention Parade Again In 1975

California led the nation again in the number of patents granted to its inventors during 1975.

A total of 76,426 patents were issued by the Patent and Trademark Office during the year. Of those, U.S. inventors received a total of 50,155, which is the equivalent of one per 4,216 in the total population.

Californians received 6,780. New York ranked second with 4,909; Illinois, third with 3,955; New Jersey, fourth with 3,909; Pennsylvania, fifth with 3,538; and Ohio, sixth with 3,179.

On a per capita basis, the State of Delaware led with 490—one to every 1,171 persons.

Residents of foreign countries received 26,271 patents. Japan led with 6,574; the Federal Republic of Germany was second with 6,171; United Kingdom, third with 3,158; France, fourth with 2,436; Switzerland, fifth with 1,473; and Canada, sixth with 1,409.

Commerce Agency Offers American History Books

Commerce's National Technical Information Service (NTIS) has issued limited editions of a number of books on American history, called The Americana Collection. The volumes and their prices are:

History of the Star Spangled Banner from 1814 to Present, PB-196 294/PAG, $13.50.

Institutional Study, House of Representatives 1790-1800, PB-220 395/PAG, $5.50.

Yorktown Waterfront, PB-222 493/PAG, $9.25.

Guilford Courthouse, PB-208 056/PAG, $7.50.

Fort McHenry Military Structures, PB-200 644/PAG, $5.00.

National Background Studies of the National Park Service (A Bibliography With Abstracts), NTIS/PS-76/0061/PAG, $25.

The complete collection is available for $50.00, order number PB-251 976/SET/PAG. Anyone who has already purchased the *History of the Star Spangled Banner* and wishes to complete the set should attach a copy of the blue card as proof of purchase and enclose $36.50.

The books can be ordered from NTIS Information Center & Bookstore, U.S. Department of Commerce, 425-13th St. NW., Suite 620, Washington, D.C. 20004.

Reprints Offered On Urban Coastal Management

Reprints of two articles on renovating and revitalizing the urban waterfront are available from the New York Sea Grant Institute.

The first, *The Urban Port: A Hidden Resource for the City and the Coastal Zone*, uses Manhattan's West side as an example of how changing activity patterns open up possibilities for renewal.

The second, *The Urban Waterfront: Opportunities for Renewal*, points out how the decline of urban port areas makes it essential for policy makers to recognize and evaluate port areas having potential for redevelopment under coastal zone management programs. Examples are given of how under-used structures and large parcels of vacant waterfront land can be made over without disrupting existing neighborhoods or industries.

The author is Mitchell Moss, an assistant professor at New York University's Graduate School of Public Affairs. The articles, priced at 50 cents each, can be ordered from New York Sea Grant Institute, State University of New York, 99 Washington Ave., Albany, N.Y. 12246 (518-474-5787).

State of West Virginia Updates Publications

People doing business in West Virginia will find two updated publications from the state's Department of Commerce helpful.

The 1976 edition of *The West Virginia Manufacturing Directory* contains information about all state manufacturing industries as designated under the Standard Industrial Classification (SIC) categories numbers 20-39. Six color-coded sections offer easy cross references that index entries alphabetically, by products made, by county and city, by exporters and by SIC number.

Information on company address and telephone number, plant manager or chief executive officer, products and number of employees is included.

The 1976 West Virginia Economic Profile contains facts, figures, maps, charts, graphs and photographs illustrating 28 separate topics covering industry, natural resources, education, government and socio/economics.

The publications are available from: Industrial Development Division, West Virginia Department of Commerce, State Capitol Complex, Charleston, W. Va. 25305. The *Economic Profile* is free; the *Manufacturing Directory* is priced at $10.

ABA Conference Proceedings Available

The American Bankers Association is making available audio cassettes and printed copies of proceedings of its recent operations and automation conferences.

The 1976 National Trust Operations and Automation Workshop Proceedings, No. 068800, is a reference document for trust operations bankers.

The 1976 Operations and Automation Conference Proceedings, No. 069100, contains the latest information on operations, data processing and electronic funds transfer systems. (This will be available after October 1.)

Each of these printed proceedings is priced at $17.50, and can be obtained from the Order Processing Department, American Bankers Association, 1120 Connecticut Ave. NW., Washington, D.C. 20036.

Selected sessions of the latter conference are available in audio cassettes. Order forms, listing sessions and prices, may be obtained from Ms. Charlotte Polly, Operations & Automation Div., American Bankers Assn., 1120 Connecticut Ave. NW., Washington D.C. 20036.

Calendar Of Business Events

Aug. 18—Olean, N.Y.—Business Development Conference, St. Bonaventure University. Sponsor: Rep. Stan N. Lundine. For information, Robert F. Magee, Commerce Buffalo Office.

Aug. 22-25—Salt Lake City — Discover America International Pow Wow & Travel Mart, Salt Palace. For information, Peter Cass, Discover America Travel Organizations, Inc., Suite 920, 1110 Connecticut Ave. NW., Washington, D.C. 20036 (202-293-1433).

Aug. 22-27—Chicago—Advertising Week, Conrad Hilton Hotel. Sponsor: Advertising Age. For information, Crain Educational Division, 740 Rush St., Chicago 60611.

Aug. 23-24 — Atlanta — A Professional Approach to Marketing Construction Services, Stouffer's Atlanta Inn. For information, Madeline Graeter, Group Communications, Inc., 6101 Southwest Freeway, Suite 401, Houston, Tex. 77057 (713-664-8818).

Aug. 23-24 — Chicago — Executive Self-Management, Hyatt Water Tower. Sponsor: Wharton School, Univ. of Pa. For information, Heidi Kaplan, New York Management Ctr., 360 Lexington Ave., New York 10017 (212-953-7262).

Aug. 23-25—Minneapolis — Fundamentals of Finance and Accounting for the Non-Financial Executive, Radisson Downtown. Sponsor: The Wharton School. For information, Heidi Kaplan, New York Management Center, 360 Lexington Ave., New York 10017 (212-953-7262).

Aug. 23-26—Park City, Utah — Energy and the Public Lands. Sponsors: The College of Law, Univ. of Utah, and The Environmental Law Institute. For information, Conferences & Institutes, Div. of Continuing Education, 1152 Annex, College of Law, University of Utah, Salt Lake City, Utah 84112.

Aug. 23-27—New York—Tooling for Injection Molding, Barbizon Plaza. Sponsor: New York University. For information, Heidi Kaplan, see address above.

Aug. 23-27—Denver—Injection Molding, Regency Hotel. Sponsor: New York Univ. For information, Heidi Kaplan, see address above.

Aug. 23-27—Atlanta—National Society of Public Accountants 31st Annual Convention, Peachtree Plaza Hotel. For information, NSPA, 1717 Pennsylvania Ave. NW., Washington, D.C. 20006 (202-298-9040).

Aug. 24-25—San Diego—Industrial Applications of High Power Laser Technology, Town & Country Hotel. Sponsors: Society of Manufacturing Engineers and Society of Photo-Optical Instrumentation Engineers. For information, SPIE, P.O. Box 1146, Palos Verdes Estates, Calif. 90274.

Aug. 25-26 — Atlanta — Design/Build, Build/Lease and Financing Building Projects, Stouffer's Atlanta Inn. For information, Group Communications, Inc., see address above.

Aug. 26-27—San Diego—Practical Applications of Low Power Lasers, Town & Country Hotel. For information, Society of Photo-Optical Instrumentation Engineers, see address above.

Aug. 27 — Muskegon — Business Opportunity/Federal Procurement Conference, L. C. Walker Sports Arena. Sponsor: Rep. Guy Vander Jagt. For information, Jim Gibson, c/o Rep. Vander Jagt, 950 W. Norton Ave., Muskegon, Mich. 49442 (616-733-2770).

Aug. 30—Boston—22nd Annual Seminar & Exhibits, American Society for Industrial Security, Sheraton Boston. For information, ASIS, Suite 651, 2000 K St. NW., Washington, D.C. 20006 (202-331-7887.)

Aug. 30-Sept. 1—Chicago—Project Management for Computer Systems, University of Chicago Center for Continuing Education. For information, Heidi Kaplan, see address above.

Sept. 1-3—Aspen, Colo.—Fundamentals of Finance & Accounting for the Non-Financial Executive, Snowmass Resort. Sponsor: Wharton School, Univ. of Pa. For information, Heidi Kaplan, see address above.

Sept. 5-10—Dallas—1976 Fall Gift, Jewelry and Housewares Show, Dallas Market Center. For information, Delores Lehr, Vice President, Public Relations/Advertising, Dallas Market Center, 2100 Stemmons Freeway, Dallas, Tex. 75207 (214-748-6832).

Disclosure Seen Curb To Foreign Payoffs

ADMINISTRATION TASK FORCE PREPARES BILL RELYING ON PUBLIC NOTICE AS DETERRENT

The deterrent force of public disclosure can significantly curb improper payments to foreign authorities by U.S. firms.

This conclusion of a Presidential Task Force on Questionable Corporate Payments Abroad is embodied in proposed legislation sent to Congress by the Administration on Aug. 3. The bill would require U.S. enterprises to report a broad range of payments relative to government transactions as well as political contributions and payments made directly to foreign officials. This requirement would include naming of recipients.

Secretary of Commerce Elliott L. Richardson, who led the Task Force through four months of study of the problem, explained that the bill relies on disclosure rather than criminal penalties as its deterrent because of the inherent difficulty of enforcing such penalties.

Other efforts needed

President Ford noted in transmitting the Administration proposal that "the questionable payments problem is an international problem which cannot be corrected by the United States acting alone. Consequently, we are continuing our efforts to secure an international agreement which will establish a mutually acceptable framework for international cooperation in eliminating improper business practices."

The U.S. earlier this year requested the United Nations Economic and Social Council to take priority action on an agreement curbing corrupt practices affecting international trade and investment. The UN unit decided Aug. 4 to begin work on such a pact. The U.S. also recently signed an agreement in the Organization for Economic Cooperation and Development on a code for multinational corporations that calls for voluntary compliance in ending such corrupt practices.

By requiring reporting of all significant payments, whether proper or improper, made in connection with business with foreign governments, the proposed Administration legislation aims to avoid difficult problems of definition and proof in enforcement of legislation that seeks to deal specifically with bribery or extortion abroad. Proposed penalties for violations include civil penalties up to $100,000 and criminal penalties up to $500,000 with possible imprisonment up to three years.

Reports will be made available to the Departments of State and Justice as well as to the Internal Revenue Service and the Securities and Exchange Commission. The Department of Justice and the State Department will, in appropriate instances, relay reported information to authorities in foreign jurisdictions to assist them in their own law enforcement.

Reports also will be made available to appropriate congressional committees. All reports would be made available to the public one year from the date of their filing, except where a specific written determination is made by the Secretary of State or the Attorney General that considerations of foreign policy or judicial process dictate against disclosure.

SEC action applauded

The Securities and Exchange Commission, the President noted in transmitting his proposal, already has taken vigorous action to discover questionable or illegal corporate payments and to require public disclosure of material facts relating to them. He referred to the SEC's experience that public disclosure of matters of this kind generally leads to their cessation. In virtually all the cases reported to the Commission, it was noted, companies discovering payments of this kind have taken effective steps to stop them and to assure that they do not recur.

Not all firms engaged in international commerce, however, are regulated under the securities laws and thus subject to the disclosure requirements of the Commission. The Commission requires disclosure of payments only when necessary or appropriate for the protection of investors, nor does it require naming of recipients.

The Administration bill consequently broadens the field of reporting requirements to include all U.S. participants in international commerce. It calls for the involvement of the Secretaries of State and Commerce and the Attorney General in administering a system covering the full range of public policy interests involved in the questionable payments problem.

To minimize reporting

The Secretary of Commerce is directed to take every feasible step to minimize the reporting burdens under this new legislation. Small or routine payments, including tax payments, are excluded. The legislation directs the Secretary to consult with other federal agencies to eliminate duplicative reporting. Where appropriate, agencies are authorized to combine reporting and record-keeping in single forms.

The Administration's proposed bill intends to build upon the Securities and Exchange Commission's expertise in financial reporting. Persons subject to the Commission's jurisdiction must maintain books and records that are sufficient to provide data the Commission believes should be disclosed. With some further SEC regulations now contemplated in this area, it may be unnecessary for the Secretary of Commerce to impose additional record-keeping requirements on companies regulated by the Commission, to enable compliance with the proposed legislation.

The Task Force on Questionable Corporate Payments Abroad was set up by President Ford on March 31 to make a sweeping policy review of approaches to the widely-publicized problems of bribes and other improper payments in a number of nations. In mid-June, after reviewing an interim report by the unit, the President directed it to develop a legislative proposal as quickly as possible. The bill now sent to Congress is titled The Foreign Payments Disclosure Act.

Multilateral Trade Negotiations

This article is another in a series of progress reports on the multilateral trade negotiations, prepared by the Commerce Department Office of Int'l Trade Policy.

GENEVA

The **MTN Tariffs Group** received the European Community's proposed tariff reduction formula July 7 (the U.S. proposal was reported in this section April 12) and as expected it emphasized "harmonization," i.e., direct linkage of degree of reduction to current duty.

The reduction formula involves four steps, each bringing a reduction of the duty by its own percentage. For example, a 15 percent duty would be reduced by 15 percent to 12.75 percent, then by 12.75 percent to 11.12 percent, then by 11.12 percent to 9.88 percent, and finally by 9.88 percent to 8.90 percent. In this case the total reduction is 41 percent. In practice, fractions could be rounded off.

Reaction was mixed, and concentrated on product coverage and form and depth of cut. The Community's formula would not apply to agricultural products, the Community having long held that only the MTN Agriculture Group should negotiate duties on such products. The U.S., whose formula proposal would cover all products, vigorously objected to this exclusion and won some support.

On the form of the proposed reduction formula, some delegations supported the Comunity's sole reliance on the "harmonization" approach. Under the differing U.S. approach, the amount of duty reduction depends partly on the current duty level and partly on a fixed percentage cut. The U.S. pointed out that the Community formu , even before exceptions, would achieve a smaller cut than that of the Kennedy Round (about 37 percent after exceptions and only on industrial products). The reduction would be particularly small in the 5 to 15 percent range, where most tariff lines exist and where most trade occurs. There the U.S. formula would reduce the absolute difference far more, and actually achieve more harmonization than the Community proposal. And while the Community formula is theoretically aimed at high duties, the U.S. formula would also make a substantial cut (60 percent) there. More importantly, such high duties are few in the tariff profiles of industrialized nations, and nearly all of the Community's high duties are in the agricultural area, which would be untouched under the proposal.

The next meeting of this group will be scheduled to receive formula presentations from Japan and Switzerland.

The MTN Group on Nontariff Measures (NTMs) met July 20-21 to review the work of four of its subgroups: Subsidies and Countervailing Duties, Quantitative Restrictions and Import Licensing Procedures, Customs Matters, and Standards, and to discuss several proposals for advancing the work on nontariff measures.

A new Subgroup on Government Procurement is to hold its organizational meeting Oct 20. The OECD Secretariat has been asked to prepare a background note on its draft code on government purchasing, for use of the subgroup. Several developing countries expressed interest in the special implications for them of government purchasing practices.

The group noted its agreement in principle at the last meeting to establish notification procedures for NTMs not being dealt with multilaterally. However, a proposal to extend this agreement to set up consultation and reporting procedures, was not accepted at this meeting because of disagreement as to whether NTMs on agricultural products should be covered by this group or that on agriculture.

Discussed, but not acted on, were proposals to set up new subgroups on antidumping and on variable levies/minimum import prices. Discussion of the latter proposal sparked a lengthy debate on the agricultural products issue.

The MTN Subgroup on Subsidies and Countervailing Duties met July 13 for a brief discussion of the Secretariat's compilation of different countries' positions on various subsidy/countervailing issues. It was agreed that the checklist, while comprehensive, should be condensed.

A discussion ensued concerning the countervailing duty aspects of variable levies when such a levy is made on a commodity whose world market price is subsidized. As expected, certain European countries insisted that variable levies should be dealt with in the Agriculture Group.

The MTN Subgroup on Quantitative Restrictions (QRs) and Import Licensing Procedures heard July 12 that the U.S. plans to offer specific suggestions on negotiating procedures at the next (November) meeting. The U.S. again expressed disappointment with the current status of the consultations. It was stated that the United States believes negotiating procedures on QRs must be established now to complete the negotiations on time. Procedures suggested by the U.S. will probably include multilateral elements designed to relate work on QRs to other MTN areas that are affected by QRs, and bilateral elements intended to deal with particular QRs of export interest to subgroup participants.

The U.S. statement was generally supported by other delegations. However, the developing countries stressed their view that guidelines for differential treatment in favor of developing countries must be established before negotiations on QRs could begin.

With respect to import licensing procedures the United States team reiterated its view that automatic licensing systems, such as those used for statistical purposes, should be eliminated since statistical objectives can be accomplished by other means.

The MTN Subgroup on Customs Matters met July 5-8, and in discussing customs valuation, i.e. the calculation of merchandise value for the purpose of duty assessment, again focused on the main elements to be included in any new set of international rules, using a GATT Secretariat paper, which is a checklist of various countries' suggestions.

Some delegations pointed out that there is a close analogy between the assessment of value for duties and the basis on which some charges, such as variable levies, are calculated, and suggested that variable levies should therefore be included in valuation discussions. Other delegations expressed the view that variable levies should be discussed in the Agriculture Group, although they acknowledged that any new valuation rules would cover all products, both industrial and agricultural.

On the issue of import documentation requirements, discussion focused on the allegedly excessive requirements of certain countries, including the U.S. (Special Customs Invoice Form 5515). The United States and several other delegations again stressed that the harmonization of import documentation requirements cannot be accomplished through procedural changes alone since documentation requirements relate to other policy areas where structural reform is needed.

On the issue of consular formalities and fees, the United States, supported by the developed countries, proposed that plurilateral consultations should take place between countries maintaining such formalities and fees, and countries interested in their removal. However, the less developed countries, which as a group generally maintain consular formalities and fees, strongly opposed this proposal, saying that such formalities and fees do not hinder trade and are important to them. Next meeting: week of Oct. 25.

In a major initiative in the **MTN Safeguards Group,** the U.S. on July 19 presented its proposal for an improved multilateral safeguard system, which would set up guidelines for countries when increased imports causing injury to domestic producers make it necessary, as an

adjustment for both firms and workers, to establish temporary import restrictions. In accordance with the Trade Act of 1974, the U.S. proposal covers all forms of import restraint and provides for improved notification, consultation, monitoring and dispute settlement procedures. Countries would not be subject, under certain conditions, to retaliation or compensation obligations. Interests of the developing nations are noted. The proposal, generally welcomed as a negotiating framework, will be discussed at the next session Oct. 27-29. Proposals by developing countries, considered to be complementary to the U.S. proposal, will also be discussed.

At the **MTN Tropical Products Group** fifth meeting June 30, the LDCs expressed disappointment with offers of developed countries, and the U.S. reaffirmed its position that it expects contributions from countries benefiting from its M-F-N tariff concessions. Consultations on a bilateral and possibly plurilateral basis will continue until the next group meeting.

Imports Soar, Exports Advance Marginally During First Half 1976

Reflecting the expansion in the U.S. economy, imports posted a large advance in value in the first six months of this year. In contrast, the rate of increase in exports was marginal. As a result, the merchandise trade balance, after a record surplus in 1975, swung into deficit in January-June, the Commerce Department's International Trade Analysis Staff reports.

Exports were valued at a seasonally adjusted annual rate of $111.1 billion in the first six months, 6 percent above their level in the comparable period last year, but barely higher than in July-December. Imports climbed sharply to $113.2 billion, valued f.a.s. ($121.7 billion, c.i.f.), an increase of one-fifth over January-June 1975 and 16 percent above their level in the final half last year. The f.a.s. merchandise trade balance shifted to a deficit of $2.1 billion ($10.6 billion, c.i.f.) at a yearly rate in contrast to the $11 billion surplus recorded in 1975.

The near leveling of export growth in the first half reflected a pronounced, but temporary weakening of U.S. sales abroad in the early months of this year, as shipments declined from their relatively high levels in late 1975. This downturn probably reflected to some extent the lingering effects of the severe economic recession from which foreign countries had just begun to recover during last year's second half. Also influencing the export level significantly were large declines in a number of key products—aircraft and farm commodities, for example—which often fluctuate sharply over short periods. Since March, exports have been on an uptrend, suggesting that the recovery abroad, although not consistently buoyant so far, is beginning to stimulate demand for U.S. products. Nevertheless, in real terms, exports through June declined slightly from the second half, though there was a modest rise over the same 1975 period.

The sharp expansion in U.S. imports this year, following the large decline in the first half of 1975 and the modest pickup in the final six months, resulted from the strong recovery in the U.S. economy which began in mid-1975, generating an across-the-board expansion in demand for foreign products. The resumption of inventory building after the substantial draw down of stocks last year was apparently an important factor underlying the import rebound, which was particularly strong in industrial supplies and consumer goods. Import prices rose by 2½ percent in the first six months over the preceding half. Price increases accounted for only part of the rise in value, however, as imports also rose strongly in quantity terms.

In January-June, nonagricultural exports totaled $44.3 billion, a rise of 7 percent over their level in the comparable period last year. This was only 2 percent higher than the final half in value and actually lower in volume terms. The sluggishness in these shipments in part resulted from large declines in sales of various products which had climbed to high levels last year. These reductions offset some of the expansion in other exports which have risen in response to the quickening pace of economic recovery abroad.

Machinery exports, comprising about one-third of U.S. nonfarm shipments, advanced only moderately in contrast to the 20 percent or better annual increases of the three preceding years. Nonelectrical machinery sales were generally listless in the first half, with the exception of computers, farm tractors, and metalworking machinery. Deliveries of power-generating machinery, materials handling equipment, and non-agricultural tractors declined from last year's second half levels and were not much changed from their values in the first half. In contrast to nonelectrical machinery, sales of electrical types rose vigorously. There was a continuing recovery in shipments of electronic components; and sales of power machinery and telecommunications apparatus accelerated.

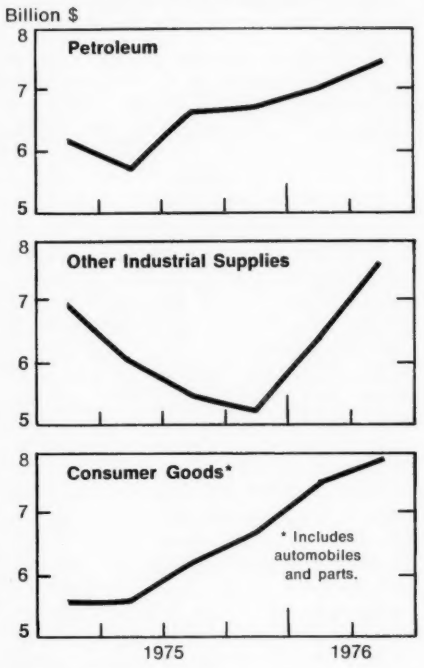
A mixed picture was displayed in exports of various types of transportation equipment. These shipments, which climbed strongly in value in the last half of 1975, dropped this year. The decline resulted from a sizable falloff in military aircraft deliveries and in truck sales. Military aircraft exports fell by nearly 50 percent. Sales of trucks also dropped sharply, as last year's especially large deliveries to Iran tapered off.

Civilian aircraft exports expanded following their slump in the second half, but they remained well below the levels in the comparable months of 1975. Automotive parts shipped to U.S. subsidiaries in Canada advanced as a result of the increase in car production there to meet the strong auto demand in this country. Passenger cars and trucks for Canadian markets, however, were lower than in the preceding half year.

Resumption of growth in foreign industrial production in last year's second half led to a rebound in U.S. exports of a number of industrial materials which has continued this year. Sales of organic chemicals and plastics posted particularly sharp increases. Paper, woodpulp, and lumber shipments also expanded further.

There were declines from the high 1975 levels for other materials. Exports of steel, which had dropped off in July-December, fell again. The reduction stemmed largely from a sharp fall in deliveries of tubes, pipes, and fittings to the oil-exporting LDCs from their exceptional levels last year. Similarly, coal exports edged down again after dropping

Selected Imports Advance as U.S. Economy Gains Momentum



Data are seasonally adjusted.

Some Key Manufactured Exports Rise, Others Decline

Millions of dollars, seasonally adjusted

	1975 Jan.-June	1975 July-Dec.	1976 Jan.-June
FIRST HALF '76 INCREASES			
Chemicals, total	4,402	4,307	4,840
Organic chemicals	1,138	1,240	1,434
Plastic materials and resins	558	620	829
Medicinals and pharmaceuticals	416	452	487
Machinery, total	13,846	14,631	15,220
Computers and parts	1,102	1,127	1,218
Electric power machinery	839	856	959
Telecommunications apparatus and parts	745	830	963
Tubes, transistors, and semiconductors	593	675	810
Measuring and controlling instruments	880	874	904
Paper and paperboard	515	619	696
Textile yarns and fabrics	764	861	964
Scientific instruments	907	887	951
FIRST HALF '76 DECLINES			
Transport equipment, total	7,936	9,343	8,599
Passenger cars to Canada	970	1,254	1,205
Trucks	793	936	734
*Military aircraft	559	779	431
Iron and steel	1,295	1,091	910
Nonferrous metals	676	636	556
Manufactured fertilizers	616	466	309
Power generating machinery	1,704	1,845	1,739
Materials handling equipment	888	955	892

* Not seasonally adjusted.

sharply in the preceding half. The downtrend in the value of coal shipments since early 1975 is partly explained by a decline in unit prices. Reduced Japanese demand as a result of high stocks and weak steel production was also a major factor.

Exports of agricultural products totaled $11.2 billion in January-June, 3 percent higher than in the comparable period last year but virtually unchanged from the second half value. The volume of farm exports increased over last year because of larger U.S. supplies and heavy demand in the USSR and Eastern Europe, but declining prices limited the growth in value. The quantity of corn shipments expanded by 40 percent over January-June 1975, but the value increase was only 20 percent. Similarly, soybean exports jumped by over one-half in volume and 19 percent in value.

Wheat sales declined in both quantity and value from the first six months of last year. They were sharply below the second half, when the total was substantially augmented by heavy shipments to the Soviet Union.

Industrial supplies lead import rise

Purchases of foreign industrial supplies other than oil rose rapidly in the first six months after a considerable decline in the preceding half. Inventory accumulation, following many months of liquidation, and the continued uptrend in U.S. industrial production were major factors in that growth. Steel arrivals, though still far below the January-June 1975 levels, expanded sharply from the second half because of increased demand for car production and other uses.

Nonferrous metal imports, particularly those of copper and aluminum, were higher than in either half of 1975. Lumber imports also were up sharply in value, responding to the pickup in construction activity here. Higher prices accounted for nearly half of the increase from January-June of last year. Newsprint entries from Canada recorded a large increase from the strike-depressed second half, but were still lower in value than in the last half of 1974 and first half of 1975.

The growth in receipts of petroleum and products slowed slightly this year. Moreover, the 9 percent rise in value over July-December to a total of $14.5 billion represented only a 3 percent increase in volume since prices continued to rise. Crude oil purchases were sharply higher in quantity because of greater demand and lower domestic production. Entries into the Virgin Islands of crude petroleum which is refined for shipment to the mainland, though not included in Census Bureau figures, totaled $1.1 billion in January-June. Natural gas receipts from Canada, limited in volume by that country's government, rose sharply because of higher prices.

Reflecting the upsurge in U.S. personal consumption expenditures for goods, imports of consumer products expanded strongly this year. Purchases of CB and other radios, TV's, and sound recorders, mainly imported from Japan, all showed sizable increases. Entries of clothing, footwear, watches, sporting goods, rubber goods, and gem diamond entries also grew in value. Motorcycle imports, in contrast, continued to fall from the high levels reached late in 1974.

Growth in imports of passenger cars from Canada, which was strong in the preceding half, moderated in January-June. Passenger cars from Japan, on the other hand, rose sharply this year over both halves of 1975, while auto imports from Germany were not significantly changed. Inventories, which were drawn down last year, grew substantially since sales of these foreign cars were sluggish.

Capital goods imports picked up considerably, after declining in 1975 in a pattern consistent with that of U.S. domestic investment expenditures. Machinery purchases accounted for about half of the increase from the previous six months. Truck imports, mainly from Canada and Japan, soared, while aircraft receipts dropped off slightly.

The value of food and beverage imports grew 9 percent in each of the last two half-year periods. Higher prices boosted the value of coffee imports by more than 30 percent, but the volume was unchanged from the second half. Tight world supplies, caused largely by weather damage to Brazilian trees, but also by difficulties in harvesting the Angolan crop, damage to the Guatemalan supply, and a dock strike in Colombia led to the steep rise in prices.

Area export increases modest

Exports to the developed countries picked up momentum in March, but increased only modestly over 1975 in the full half year because shipments declined in the early months. Sales to Canada continued to grow, posting the largest rise of any of these nations. There was a slight expansion in shipments to Western Europe, but deliveries to Japan, while marginally above their depressed second half level, remained below the first six-month total. The oil-exporting LDCs' purchases edged downward from July-December levels following sharp rises for two years, but exports to the other LDCs declined compared to either half of 1975. Large grain sales to the USSR and Eastern Europe boosted exports to the communist countries.

The rise in imports in the first half was spread among all major U.S. trading partners. Arrivals from Japan paced the expansion with a rise of 40 percent over the previous six months. After declining in both halves of 1975, imports from Western Europe turned upward. Following their rebound in the final period of last year, receipts from the petroleum-exporting LDCs and the other developing countries continued to advance.

FROM THE SECRETARY—*First Presidential "E Star" Award conferred by Sec'y Richardson was to Gerson Int'l, Fort Wayne, Ind., export management firm active in automotive products and tools. President J. R. Gerson is at second right in group of Gerson officials. Photo at upper right depicts the Secretary's first "E" ceremony in his office, with Dr. Walter H. Robb, General Manager of General Electric's Medical Systems Div., Waukesha, Wis., recipient.*

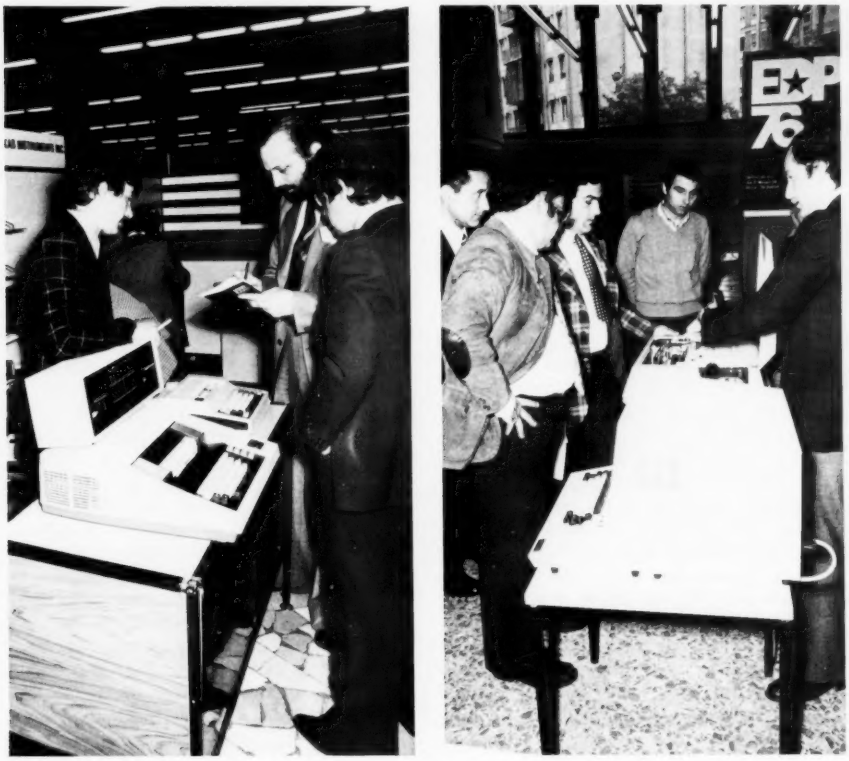
INTO THE SUN—*"E" flag rises over First National Bank of Arizona, lifted by Rep. John Rhodes, bank pres. Robert Williams and Arizona Gov. Raul Castro.*

SPECIAL RECOGNITION—*Sen. Jacob Javits of New York presents "E Star" to officials of Brewster, Leeds & Co., New York exporter of edibles and a major recent donor to the Institute of International Business at Pace University. From left are Erwin R. Peters, B. Leon, Josef B. Ducat, Senator Javits and William S. Ducat.*

EFFORTFUL 'E's

Some of the 1976 winners of "E" and "E Star" (repeat) Awards for Export Excellence are shown in these photos, selected from many to represent the geographical and commercial range that is encompassed in the Presidential recognition. The common bond was success in building up the export total in the national trade balance.

IN THE NATION'S CAPITAL—*Group ceremony during World Trade Week saw Assistant Sec'y of Commerce Joseph E. Kasputys (left) honoring eight firms and their officers: Commercial Export Co. of Texas, Nacogdoches, Mrs. Audrey Quick and Robert J. Quick; Quality Boiler & Machine Works, Thibodaux, La., George H. Diedrich, Jr.; Modular Computer Systems, Ft. Lauderdale, Fla., Harlan Dybdahl; Pillar Corp., Milwaukee, Ernest C. Goggio; AMICO, N. Miami Beach, Fla., Adrian A. Walser, Glenn J. Diedrich; Penn Brass & Copper, Erie, Pa., Joel G. Lehman; Sontrix, Inc., Boulder, Colo., Mrs. Waibel and Theodore A. Waibel, Jr.; Kahlsico Int'l, El Cajon, Calif., Michael B. Kahl. Success in exporting earned the awards.*



EDP USA '76, MILAN—*Customers at Trade Center get answers from exhibitors about their equipment. At left, booth of Texas Instruments; at right, of Tally Corp.*

EDP '76 IN MILAN TOPS EARLIER RECORDS; U.S. SALES SEEN CLIMBING

A total of $7.4 million in floor sales was the record-setting result of "EDP USA '76," a May exhibition of minicomputers, terminals, and peripherals at the Milan U.S. Trade Center.

The fifth in an annual EDP series at the Center, and the only annual EDP show in southern Europe, the exhibition has come to be described by suppliers and users alike as "a show not to be missed." The '76 event drew buying missions from several neighboring countries—for example, a group of 48 business and government officials from Greece. Fifty-six participants exhibited for 91 companies—another record for the Center. They anticipate some $32.2 million worth of business during the next year, stemming from contacts during the event.

Despite pre-election uncertainties, the weakness of the lira, and recently announced Italian government import restrictions, 2,800 trade visitors—the most ever for an EDP show—attended. Such interest by potential customers confirms that Italian industries, plagued by high labor costs, are increasingly aware of the computer's utility, efficiency, and ability, and that minicomputers are being sought by virtually all industries—especially medium-sized ones that have been less affected by the recession than Italy's giants.

Export growth at 20 percent

U.S. exports of computers and related equipment to Italy are expected to increase by as much as 20 percent annually in real terms through 1977. Of the country's total EDP market of $450 million in 1974, imports accounted for about $250 million.

A bicentennial symposium, "Two Hundred Years of Science and Technology for the Advancement of Mankind," was held during the exhibition. Organized with the collaboration of Italy's Federation of Scientific and Technical Associations, the symposium had among its speakers Mario Pedini, Italian Minister of Research and Technology and Ruth Davis, Director of the Institute for Computer Sciences and Technology, U.S. National Bureau of Standards.

U.S. Exhibitors Benefit From Improvement In Iran Furniture Market

That the market for furniture in Iran has improved considerably in the past year was amply demonstrated by the success of a recent exhibition at the Tehran U.S. Trade Center.

The impetus for the American Furniture Exhibition, the first consumer goods show at the Tehran Center, was the removal a year ago by the Iranian Government of the 200 percent commercial benefit tax on imported furniture. Although this left a 100 percent customs duty (c.i.f.), and the resulting price for imported furniture is still high, the reduction was significant.

As earlier market research had suggested, high quality, medium-priced hardwood furniture, whether office or residential, enjoyed the best results. Highly priced, upholstered, "overstuffed" furniture, has a very limited market in Iran. Metal and vinyl dinette sets, moderately priced chrome-leather-vinyl contemporary furniture, outdoor furniture, high-quality residential table lamps, and reproduction pieces are among the items offering the best potential.

Prices for such products generally are competitive with those of third countries, the U.S. Embassy reports. The position of U.S. products could be enhanced, however, by reducing landed costs—most effectively by shipping on a knocked-down basis with assembly in Iran. For quality received, Iranian-produced furniture is likely to remain expensive for some time. Imported furniture from all current sources will continue to enjoy high market acceptance, particularly if the import duties remain constant or decrease. Over time, the Iranian industry will be upgraded, but the process is likely to take at least six to eight years.

Twelve exhibitors, all new to the market, participated in the Center show. Floor sales totaled $149,000; 12-month projections, $7.2 million.

FABRIC TRENDS—*At Tehran exhibition, William Jackson (center) shows fabric samples from Hayes Furniture Co. to Iranian visitor (left) and interpreter.*

SEEING CAT PERFORM—*Governor Hsieh Tung-min (fourth from right) of the Taiwan Provincial Government—at Taipei U.S. Trade Center's offsite exhibition, Construction USA—watches maneuverability of Caterpillar track loader.*

EXPANDING CONSTRUCTION INDUSTRY IN TAIWAN BOON TO U.S. EXHIBITORS

The Republic of China's construction industry has been developing rapidly over the past five years. Ten major infrastructure projects begun in 1973-74 soon will be supplemented with construction of light and heavy manufacturing facilities, new office and apartment buildings, low-cost housing units, cross-island highways, and feeder roads.

Participants in CONSTRUCTION USA, a recent exhibition at the Taipei U.S. Trade Center, benefited on the spot from these developments. Floor sales reported by the 36 exhibitors reached $1.7 million and 12-month projections, $21.9 million. Three representatives were appointed; several agreements are under negotiation. As the Taiwan Government encourages imports of technology-intensive equipment from the United States, American companies should enjoy substantial sales during the next five years, the U.S. Embassy reports.

The exhibition offered an opportunity for government officials, engineers, governmental and private contractors, architects, engineering and construction consultants, plywood manufacturers, and businessmen from the furniture and wood handicraft industries to become further acquainted with the latest U.S. developments.

Although regular buyers of heavy construction equipment in Taiwan are limited to a few government and quasi-government operated construction agencies, several private construction and engineering firms demonstrated strong interest in this equipment during the exhibition. Portable electric drills, grinders, air compressors, certain hydraulic tools, concrete curbing machines, roof coatings, sanding belts, primers and compounds also were among items of major interest.

End users consider the price of U.S.-manufactured building and construction equipment to be higher than that of similar local and third-country products. For instance, U.S. bulldozers are generally priced 20 percent higher than those manufactured locally, and hydraulic rough terrain cranes are 30 percent higher.

However, U.S. firms manufacture a significantly wider variety of products than do local and third country manufacturers. Small construction equipment is likely to have the best sales potential. For these items, buyers will opt for the higher priced U.S. equipment because they believe that their quality and durability are superior to those of the cheaper, local or third country products.

U.S. construction equipment also enjoys a favorable competitive technological advantage. For the past two years, U.S. suppliers have had the largest share of Taiwan's import market for excavating, leveling, and boring machinery.

U.S. manufacturers will improve their market penetration if they provide better after-sales service. Japanese firms offering favorable credit arrangements and adequate after-sales services penetrate the market with little difficulty.

Venezuelan Construction Boom Enhances Sales At U.S. Equipment Show

The Venezuelan construction industry, with an 18 percent annual growth rate for 1974-75, is one of the fastest growing elements of the country's economy. Imported equipment should surpass $360 million this year and is forecast at $716 million by 1980. This dynamic market set the stage for the brisk business activity that marked a recent U.S. solo exhibition of materials handling and construction equipment in Caracas.

The 82 exhibitors who participated in CONSTRU-QUIPOS '76 recorded off-the-floor sales of $8,897,000 and projected more than $49.5 million in business during the coming year. Of this amount, $21.2 million was projected by the 28 exhibiting firms that were new to the Venezuelan market. Many of these new-to-market firms also used the event to sign sales agents and distributors for their products.

Cranes, personnel/material hoists, excavators, fork-lifts, road wideners and pavers, masonry saws, air compressors, concrete pumps and finishers, compacting equipment, front-end loaders, and off-highway trucks were among the many products displayed in this complete spectrum of equipment for the industry.

Specific products which drew top attention and sold well included machinery to fabricate concrete and steel pipes, earthmoving equipment, portable power tools, pre-stressed concrete forming decks and systems, chemicals for treating and sealing concrete, paving equipment and pre-fabricated buildings.

"Very successful for us" was the comment of Alejandro Siches, Venezuelan distributor for the Hyster Co., which sold $500,000 at the exhibition and expects $4.5 million in business during the coming year. Jack Moore Associates of Holliston, Mass., appointed a distributor. The firm also realized immediate sales of $500,000 and anticipates $1.25 million in additional sales in the next 12 months.

Venezuelan investment in new building is expected to advance by 14 percent annually through 1980. Major building projects include enlargement and improvement of the ports of La Guaira, Puerto Cabello and Maracaibo; a low-cost housing project budgeted for $1.6 billion between 1975 and 1979; new terminal and cargo facilities for the International Airport at Maiquetia; the Caracas Metro subway system; and expansion of roads and highways. U.S. manufacturers maintain a 60 percent share of the market for imported building products and construction equipment, and the outlook for continued sales of U.S. construction equipment to Venezuela is bright.

INTERNATIONAL FIRMS ATTRACTED BY QATAR'S PROJECT OPPORTUNITIES

Fueled by substantial oil revenues, the economy of Qatar is developing at a startling pace. Oil income is expected to reach $2 billion in 1976, and a major portion will be spent on industrial and infrastructure development. Qatar is placing increasing emphasis on diversification of its economy and the resulting project opportunities have attracted a large number of international firms, according to the U.S. Embassy in Doha.

The petroleum sector will continue to dominate the economy for the foreseeable future. At present levels of production, reserves are expected to last for 25 years, and further exploration is being conducted. Qatar also has enormous natural gas fields which could be produced for several hundred years without exhausting reserves. Most major industrial projects planned or under construction are related to the petroleum sector, deriving either fuel or feedstock from Qatar's reserves. In addition to industrial projects, Qatar will spend large amounts on housing, communications, health facilities and other infrastructure developments.

Qatar has adopted a relatively conservative policy toward oil production and has attempted to control the pace of development. Almost $1 billion is budgeted for capital expenses in 1976 and there are considerable opportunities for international firms in almost every area of the economy. The absence of a technically or administratively trained indigenous population has resulted in a heavy reliance on foreign labor and skills, and lack of an established infrastructure or industrial base has created some absorptive problems and bottlenecks.

The United States has not been a traditional supplier of Qatar with the exception of oilfield supplies and equipment. Thus far, American firms have not participated to a significant extent in the booming economic development of the country, especially in the major projects field. In the past year, however, American architects, engineers and contractors have shown an expanding interest in the numerous opportunities in Qatar.

U.S. exports to Qatar have increased from $16 million in 1972 to over $50 million in 1975 when they accounted for 12.5 percent of Qatar's total imports, the highest percentage ever. In addition to supplies for the oil industry, motor vehicles have been one of the most important American exports to Qatar. There appear to be rapidly expanding opportunities for the sale of construction equipment, building materials, housewares and household furnishings and materials handling equipment.

Thus far, participation of American firms in major project activity has been limited to the design and construction of a 7,000 barrel-per-day refinery and a major subcontract for the steel mill. Several American architects and planners have recently received commissions for the design of government-financed projects, including a large hotel and a sports center. American firms have begun to compete more actively for important contracts such as the new NGL plant, a second refinery, and several large construction projects. Additional future opportunities for contractors will include housing projects, hotel and university construction and processing plants for the gas industry. A broader listing of current and proposed major projects is available from the Department of Commerce or the U.S. Embassy in Doha.

In general, both the government and private sectors are favorably disposed toward American firms. American products and services enjoy a reputation for quality and reliability, and there is substantial local interest in expanding trade relations with the United States. However, the government is very conscious of price in evaluating bids, and American offers have been considerably higher than those of European or Japanese competitors. These higher estimates are often the result of unfamiliarity with local costs and conditions. Also, several recent bids by American companies have been rejected because they did not comply with the terms of the tender, generally because of the addition of escalation clauses which are not acceptable to the Government of Qatar.

Thus, while there are a number of major opportunities for American firms in Qatar, successful competition requires acceptance of the local ground rules and a thorough knowledge of the area which can be gained only through repeated visits.

The Government of Qatar actively encourages foreign investment, especially for industrial projects. There is a legal requirement that all local companies have 51 percent Qatari ownership, although exemptions can be obtained by special decree. Equipment and material imported for use in new industries are exempted from duties, and industrial ventures in Qatar are entitled to a five-year tax holiday that can be renewed. There are no personal income or municipal taxes.

The Government of Qatar may also assist foreign investment in industry through capital participation, long-term, interest-free loans or by providing free land. The government is especially interested in furthering the development of petrochemical, food processing and plastics industries. There may also be excellent opportunities for international firms for the manufacture of prefabricated housing.

Trinidad And Tobago Gives More Attention To Imports As Oil Revenue Flows In

Thanks to oil revenue, the economy of Trinidad and Tobago is strong, even though output in many sectors was disappointing in 1975. Economic performance in 1976 has been much better, and at mid-year refinery throughput was back up, sugar production was near traditional levels, and output had increased in most other manufacturing and agricultural sectors. Production of crude oil has steadily increased since 1972, and now has reached about 225,000 barrels per day, adds the U.S. Embassy in Port-of-Spain.

On May 28 the Trinidad and Tobago dollar's traditional link with sterling was severed, and the currency is now tied to the U.S. dollar at a rate of TT$2.40 = US$1.00, an effective devaluation of 20 percent from the historical exchange rate. The new link with the U.S. dollar will provide a welcome element of stability for firms trading with the U.S. and other non-sterling areas.

Although firm data are lacking, the inflation rate declined somewhat in 1975 and should drop further in 1976, partly due to the government's success in keeping Trinidad's domestic economy insulated from the expansionary effect of the tremendous surge in oil revenue.

U.S. exports to Trinidad and Tobago increased by over 60 percent in both 1974 and 1975, years in which Trinidad's total (non-oil) imports grew by 33 and 40 percent, respectively. This means that the U.S. share of Trinidad's import market has soared to 44 percent from the 33 percent share averaged in recent years. Due to a 1975 strike in the petroleum refining industry, Trinidad's total imports that year dropped in value by $350 million, despite the fact that non-oil imports increased by about $210 million. Total exports registered a similar decline of some $250 million, yet Trinidad's non-oil exports grew about $150 million, reflecting increased indigenous oil production. Higher oil prices thus have reversed Trinidad's historically un-

UNDER CONSTRUCTION IN TRINIDAD—*Fluor Engineers and Constructors, Inc., Los Angeles, is building this ammonia fertilizer factory for the Trinidad Nitrogen Co. Ltd., a joint venture between the Government of Trinidad and Tobago and W. R. Grace Inc. Here, the east side of the pipe rack looking through the compressor house.*

favorable balance of trade, and have also spurred a tremendous demand for imported goods.

Trinidad is embarking upon a massive $3-$5 billion industrialization program, aimed at employing its oil revenue and natural resources to create employment, to reduce the country's dependence upon the petroleum sector through diversification, and to convert raw materials into export products with a high value-added content. A second ammonia fertilizer plant (a joint venture with W. R. Grace) is nearly completed, and plans are drawn for a direct reduction process steel plant and rolling mill. Other top-priority projects include a new cement plant, a polyester fiber factory, another fertilizer plant and a furfural factory. Implementation of these plans will mean vast additional expenditure on electric power generation, port and harbor construction, and water resources development. Details about these projects are available from the U.S. Department of Commerce.

The Trinidad Government is actively seeking foreign participation in its industrial development program. Private (and public) foreign companies are welcome as equity partners, engineering and design consultants, process and equipment suppliers, or as marketing partners. The government insists, however, on "meaningful local participation" in all major new investments, which in practice means that at least 51 percent of equity ownership must be in local hands. As a result, most of the planned major industrial projects are being drawn up to include the government as a joint-venture partner. In all of these enterprises, the government emphasizes maximum use of indigenous labor, and strictly enforces work permit regulations designed to minimize hiring of expatriates.

At the same time that foreign partners are being sought on a joint-venture basis, the government is also seeking to reduce the influence of wholly foreign-owned firms operating in Trinidad. Companies in some sectors (such as banking and insurance) are urged to incorporate locally and sell a majority of their shares to local residents. Other companies have been purchased outright, such as Shell's marketing, producing and refining properties in 1974, and a small, British-owned sugar company in 1976. In view of the government's acquisition policy, it is worth noting that Trinidad has pursued a careful and moderate policy which has not resulted in expropriations or unresolved nationalizations of foreign firms.

The preferential tariff system once accorded suppliers in British Commonwealth nations was abolished Jan. 1, opening up an entire range of manufactured products and consumer items to fair competition from U.S. suppliers. The only remaining restrictive trade barriers are those imposed by the Caribbean Community (CARICOM), which is a small regional integration movement composed of the English-speaking nations and territories in the Caribbean basin. The Caribbean Common Market is typical of many regional economic integration efforts, and offers businesses that establish plants there access to a market of 5 million as well as the usual type of producer incentives such as tariff protection, tax holidays, and largely duty-free trade among its members. In Trinidad's case, protection is extended to local processing, packaging, light manufacturing and assembly industries by means of a "negative list" of goods for which a prior license is required.

Now that the value of the TT$ has been pegged to the US$, local importers can be confident about pricing when they place orders with American suppliers. Entire plants will be purchased for Trinidad's proposed industrial projects, affording excellent opportunities for U.S. engineering and consulting firms, and exporters of process technology, capital equipment and related infrastructure items. Trinidad and Tobago should also continue to be a good market for U.S. agricultural exports ($52 million in 1975), primarily in the form of raw or bulk commodities for further processing or packaging.

As oil revenue flows in, Trinidad and Tobago can be expected to devote more attention (and an increasing share of foreign exchange receipts) to improving the quality of life for all its citizens. These programs will afford good opportunities for exports of lines such as advanced health care delivery systems, classroom and laboratory furniture and equipment, industrial safety and pollution control equipment, water treatment and sewage processing plants, and similar items.

South Africa Now Requires 20 Percent Import Deposit

Effective Aug. 2, imports into South Africa are subject at the time of entry to a 20 percent deposit based on the f.o.b. value of the shipment. The deposit, lodged with the Controller of Customs and Excise, is to be returned without interest at the end of a period not to exceed six months.

Certain selected categories of goods are excepted from the deposit requirement. These are: mineral fuels, oils and products of their distillation, bituminous substances, and mineral waxes; goods imported exclusively for re-export in their original form to countries outside the Southern African Customs Union; goods valued at less than $115; goods valued at over $11,500 and which have been declared by the Secretary for Industries as being essential capital goods or equipment required in connection with a development project for purposes other than replacement; State importations; relief and charitable goods; goods for diplomatic missions; immigrant's goods; re-imported goods; and goods temporarily imported for specific purposes.

Nigerian Rules Are Clarified

Commerce America has received clarification on two details regarding new Nigerian regulations governing shipping documents. Relevant shipping documents should be forwarded to the Central Bank by the bank in Nigeria within 21 days of receipt of the cable from the correspondent bank—not within two days as reported in the July 5 issue. Also, the directions available from the Nigerian Port Authority or Nigerian Airways contain a copy of the clearance certificate which must be obtained in addition to the bill of lading and other relevant documents, by all ships and airline owners or agents carrying imported cargo into Nigeria.

Worldwide Business Opportunities

International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors abroad. One of the major means for communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine.

The section that follows presents details about upcoming trade exhibits and trade missions, licensing and joint venture proposals, opportunities to sell to foreign enterprises and appoint agents, and details on major construction and expansion projects.

U.S. Promotions Abroad

For more facts on these and other U.S. exhibitions write: Director, Office of International Marketing, Rm. 4015, U.S. Department of Commerce, Washington, D.C. 20230. For trade missions: Rm. 6051, U.S. Department of Commerce, Washington, D.C. 20230.

In-Store Promotion. Jenners, Edinburgh. Sept. 27-Oct. 9. Jenners, the prestige retail outlet of Edinburgh, Scotland, will feature a U.S. Bicentennial promotion for two weeks. Product categories of interest include all types of apparel, fabrics, linens, housewares and furniture. Store contact: Mr. J. McDermott, Jenners, 48 Princes St., Edinburgh EH2 2YJ. U.S. buying office: Affiliated Traders Ltd., Attn. Miss Aeta Salba, 220 Fifth Ave., New York, N.Y. 10001. Mollie Cleveland, 202-377-4705.

Machine Tool Catalog Exhibit. U.S. Trade Centers, Singapore, Taipei, Sydney. October. Added feature is a sound and color video tape recording. Officials of key metalworking and finishing firms will be invited to view film and catalogs and talk to a representative of the National Machine Tool Builders' Assn., which is assisting with show. Frederic J. Gaynor, 202-377-3846.

In-Store Promotion. Denby's, U.K. October. Denby Furniture Ltd. is planning a promotion of U.S. furniture and home furnishing items during October at major House of Fraser outlets in the U.K., including Harrods and John Lewis stores in London. Contact Robert B. White, International Marketing Director, Denby's, Derby DE5-2NX, U.K., or Charles Johnson, 202-377-4705.

Port Development Technical Sales Seminar. Saudi Arabia, Egypt and Morocco. Oct. 3-15. Areas of specific interest include port consulting and engineering, deck and engine room machinery, materials handling and cargo control equipment, ship service and repair systems, shipyard productivity and improvement systems, anti-corrosion materials, anti-pollution equipment and communications and control equipment. E. Lee Carteron, 202-377-2973/4.

Building and Construction Equipment and Supplies Exhibition, U.S. Trade Center, Paris. Oct. 4-7. Excluding common stone and wood, the market for these products in 1975 was $15 billion and is expected to grow to $19 billion by 1980. For further information contact Robert B. Wallace, 202-377-4976.

Electronic Components Catalog Exhibit. Barcelona. Oct. 9-17. To be held in conjunction with the Image, Sound and Electronic Trade Fair (Sonimag), a major annual event in Spain. In 1975, U.S. exports of electronic components to Spain amounted to approximately $3 million. The Spanish Government has ambitious plans for expanding the electronic/telecommunications industries. In 1974, it decreed preferential interest to the electronics industry. Robert E. Peterson, 202-377-3973.

Business Systems Exhibition. Tehran Trade Center. Oct. 10-14. Iran is the fastest growing market for U.S. exports in the world. Over the last two years, our exports to Iran quadrupled to $3.2 billion. Much of Iran's approximate $20 billion oil income goes to industrial and business growth. This force-feeding of economic growth offers excellent sales opportunities for American suppliers of computers and business equipment. Within three years the Iranian import market for business systems will amount to $63.5 million. Don Ryan, 202-377-2952.

In-Store Promotion. Shalom Stores Ltd., Tel Aviv. Oct. 10-31. Shalom is planning a major Bicentennial promotion of U.S. consumer products. U.S. buying office is Marcent Int'l. Inc., Attn. Kurt J. Heilbronner, V.P., 200 Park Ave., Suite 5305, New York, N.Y. 10017. Mollie Cleveland, 202-377-4705.

Micro and Minicomputer Equipment Exhibition. U.S. Trade Center, Frankfurt. Oct. 12-15. Germany is the world's third largest user of computers and related equipment. Current research points to an immediate and very significant market in Germany for micro, mini, small and medium computers, peripheral equipment and software. Major users include banks, financial and insurance institutions and transportation and communications industry sectors. The use of computers and related equipment in Germany is more extensive and sophisticated than in any other country except the U.S. The value of Germany's EDP installations is estimated at $5.7 billion. An expected 16 percent average annual growth rate points to a $2.6 billion total market in 1977. Dwight Umstead, 202-377-4414.

Chemical Industry Equipment Exhibition. U.S. Trade Center, Milan. Oct. 12-16. Italy's chemical industry is the fourth largest in Europe, with production of primary chemicals totaling $12.7 billion in 1974. Estimates through 1990 indicate that the chemical sector will enjoy growth rates of around 20 percent annually over the total period. U.S. technology in this field is highly regarded. Held concurrently with the MAC International Chemical Exhibition at the same location, it will provide U.S. firms access to a number of European and Mediterranean markets. Sam Spaulding, 202-377-4508.

Energy Systems Technical Sales Seminar. Madrid, Barcelona, Belgrade and Zagreb. Oct. 17-30. Rapidly increasing power needs requiring the development of hydroelectric, thermoelectric and/or nuclear power, plus improving economic conditions, provide significant opportunities for U.S. technology and equipment sales in Spain and Yugoslavia. Sales of energy equipment and systems will grow in accordance with Spain's Energy Plan, which calls for doubling energy production in the next decade. The Yugoslav Government has set a goal of expanding hydroelectric plants from 4,600 MW to 9,400 MW and thermoelectric plants from 4,000 MW in 1975 to 10,500 MW in 1980. Jonnell Jacobson, 202-377-4918.

CERAMICS '76—Seminar and Exhibition of U.S. Ceramics Production Equipment, Accessories and Materials. U.S. Trade Center, Mexico City. Oct. 18-20. U.S. export sales of ceramics production equipment are forecasted to increase in real terms 11 percent yearly until 1978 and 16 percent yearly from 1978 to 1980, in line with predicted movements in construction. William Brandt, representing the American Ceramics Society, will organize and conduct this seminar, scheduled just before the Southwest Section of the American Ceramic Society's Fall meeting in Monterrey (Oct. 20-22). Exhibitors can conveniently attend both programs. For a copy of the market research report which includes a list of high sales potential products as well as further information on this exciting event, contact Anita F. Brownstein, 202-377-3213. You may also contact Brandt directly at 713-785-3878.

Electronic Components Catalog Exhibit. Amsterdam. Oct. 18-22. To be held at the International Industrial Electronics Trade Fair (FIAREX), the key Dutch trade event focusing on this theme. The Netherlands is an important market for sophisticated electronics, as it is a major producer of telecommunications equipment, computers, electronically controlled industrial equipment, instruments, and consumer products. Agents and distributors of electronic components are eager to locate new suppliers or to learn about the newest U.S. products. Robert E. Peterson, 202-377-3973.

Mineral Production & Processing Technical Sales Seminar, Jakarta and Kuala Lumpur. Oct. 18-28. Foreign investment contracts approved since 1967 valued at well over $500 million are still being implemented, and new contracts are now being generated as private participation interests are encouraged by the Indonesian Government in further development of the country's large mineral resources. Malaysia's acknowledged world leadership in the production of tin is

realized in the nearly $600 million in annual exports: new tin production investment is growing as private participation contracts become more widely used in tin as well as in copper and coal extraction. Seminars conducted in these two countries will feature presentations from seven American companies on the fundamentals of modern extraction and processing of non-oil minerals of the area. Sales appointments with key buying officials will supplement the technical seminar sessions in each city. Contact W. Brad Tyrrell, 202-377-4304.

Technical Sales Seminar in Instrumentation. New Delhi. November. The Indian Government has accorded priority to expansion in the heavy industrial sectors, particularly petroleum exploration, production and refining; fertilizer production; and petrochemicals. In addition, there is increasing emphasis on scientific research and development and providing modern medical services on a mass basis. The demand is for sophisticated instrumentation required to fill technological gaps and achieve economic objectives. Foreign exchange is readily available for this purpose. Will be held in conjunction with the first World Instrumentation Symposium and International Trade Exposition (WISITEX) which opens in New Delhi, Nov. 22. William J. Bushwaller, 202-377-4511.

Agribusiness Technical Sales Seminar, Lagos, Khartoum, Libreville. Nov. 2-19. Changing economic conditions, new sources of investment capital, a need to remedy food shortages and a plan to increase commodity exports in Nigeria, Gabon and the Sudan call for extensive development in the agricultural sector. Projects in each country include livestock and dairy production, land clearing, irrigation, harvesting and processing. While petroleum is Nigeria's principal foreign exchange earner, agriculture and animal husbandry are the mainstay of the domestic economy. The Nigerian Third National Development Plan (1975-1980) provides for a $3.6 billion investment in the agricultural sector, with emphasis on accelerated food production. The Government of Gabon announced a realignment of spending priorities, supported by an anticipated increase in oil revenues, allocating $350 million for agricultural projects over the next five years. The Sudan has been designated as the future principal regional food supplier and therefore is recipient of substantial funding from Arab oil-producing countries. In addition, the World Bank has heavy interest in Sudanese agribusiness projects. Contact Jonnell Jacobson, 202-377-4918.

Technical Seminar on Machine Tools. Czechoslovakia, Hungary and Bulgaria. Nov. 6-20. These countries offer growing markets for U.S. manufacturers of machine tools. Company participants will present technical papers in each country to a highly select audience of buyers, technicians, and end-users. Contact Judith Robinson, 202-377-3376.

Computers and Peripheral Equipment Exbn. and Seminar, U.S. Trade Center, Sydney. Nov. 8-12. The Australian computer/peripheral market is currently valued at over $211 million. The U.S. is Australia's leading supplier with a market share of about 50 percent. However, competition is intense with strong competition coming from the U.K., West Germany and Japan. Total computer consumption in New Zealand totaled $14 million in 1974; the U.S. accounted for $4.2 million. An annual growth rate of 10-15 percent is predicted. Call Don Mathes, 202-377-4957.

Communications Systems & Equipment Exbn. U.S. Trade Center, Taipei. Nov. 15-19. Taiwan, a booming market primarily oriented to U.S. sources for its substantial imports of advanced hi-technology communications gear, has embarked on a massive modernization and expansion program. Heavy growth is seen from 1977-78, especially in telephone equipment needs. This event will feature data communications with latest dial-up systems, C.C.T.V., microwave, transceivers, and monitoring & testing gear. High sales prospects are further supported by a U.S.-source Eximbank loan of $27 million for PABX boards, coax cables, microwave, toll switching, traffic counting and engineering/consulting services. Dave Horridge, 202-377-2798.

Food Processing and Packaging Equipment Specialized Trade Mission. Kenya, Cameroon and Ivory Coast. Nov. 15-30. These countries are among the many developing nations which are paying increasing attention to the problem of food supply and the development of agriculture-based export industries. The mission will visit Nairobi, Kenya; Yaounde and Douala, Cameroon; and Abidjan, Ivory Coast. Participation is open to U.S. suppliers of machinery, equipment and services for grain milling, sugar processing, dairy processing, butchering and meat and poultry processing, fish catching and processing, baking, ice-cream and candy making, edible oil processing, freeze drying, dehydration, refrigeration and packaging. For information call Bertie Renborg, 202-377-3741.

Engineering Design Components. U.S. Trade Center, Milan. Nov. 23-27. Components, materials and technology in the machinery, automotive, aerospace, and other equipment and electro-mechanical industries will be featured. Transmission components, hydraulic and pneumatic components, electrical and electronic controls, special materials, shapes and forms, joining systems and components are included. U.S. products have tremendous potential in this market. Runs concurrently with BIAS, international automation engineering exhibition, at the same fairgrounds. J. Michael Springmann, 202-377-4975.

HEVAC-76 International Trade Fair. Tehran. Nov. 24-30. The United States is still Iran's No. 1 supplier, claiming better than a 20 percent share of a market the U.S. Department of Commerce predicts will go to $40 billion by 1980. The rapid increase in population, the jump in national income as a result of oil price increases and a dramatic rise in the standard of living within the past decade have considerably intensified construction requirements in Iran, particularly in housing. The market for HEVAC equipment has grown from $150 million in 1975 to an estimated $340 million in 1976. According to the Fifth Development Plan (1973-1978), approximately $6 billion is targeted to improve the housing situation. In order not to let these orders go by default to foreign competition, the U.S. Department of Commerce is planning this showcase for heating, ventilation, air-conditioning, plumbing, refrigeration and sanitation equipment, architects/engineers and contractors. Call Franc Manzolillo, 202-377-2991.

Electronica 76. Munich. Nov. 25-Dec. 1. Germany's total consumption of electronic components is predicted to exceed $1.7 billion in 1977, while the market for electronic production and test equipment is expected to reach $343 million. In both categories, imports account for more than 40 percent of the entire market and the United States is the country's leading supplier with a share of about 28 percent. Best sales opportunities exist for U.S. exporters of color TV tubes, capacitors, resistors, integrated circuits, diodes, transistors, production and test equipment, and materials. Best market prospects are in computers, measuring and testing instruments, industrial equipment, and medical electronic equipment. Don C. Schmadel, 202-377-2177.

Telecommunications Equipment & Systems Exhibit (JEEP). Paris. Nov. 29-Dec. 2. Significant opportunities for exports should arise in the entire telecommunications market as a direct result of the French Government's recently announced massive program to increase the telephone system's capacity some 300 percent during the period 1976-1980; about $10 billion will be expended on equipment purchases. Some 6-8 new-to-market firms will be eligible for this event. Contact Ned Krause, 202-377-5381.

Analytical Instruments for Science and Industry Exhibition, U.S. Trade Center, London. Nov. 29-Dec. 3. The British market for analytical instruments for science and industry was valued at $85 million in 1974. Expanding technology, increased investments by industrial and government laboratories, and a general economic recovery should push the market to $100 million in 1979. Imports from the United States, which account for more than 25 percent of the total market, are expected to jump from $22 million in 1974 to $32 million in 1979. U.S. firms are the leading import suppliers of four categories of products—automatic analyzers, gas chromatographs, oscilloscopes, and atomic absorption spectrophotometers—and have obtained a large share of the British market through their technological superiority and effective marketing practices. Robert L. Bradshaw, 202-377-4461.

Metalworking, Finishing Equipment and Machine Tools Product Literature Display. Johannesburg and Cape Town. Nov. 29-Dec. 8. In 1972, South Africa's apparent consumption of metalworking, finishing equipment and machine tools registered $68.8 million; for January-September 1975 this figure rose to $161.1 million. Local production accounts for only about 6 to 7 percent of these market figures. Over the last few years, there has been substantial growth in the local industries that rely on the machine tool industry, partly because of the need to upgrade quality as a result of the increasingly stringent local programs supporting South African industry. This product literature display should provide an excellent opportunity to attract the attention of South Africa to the latest advances in technology in U.S. products. Robert E. Peterson, 202-377-3973.

Pulp, Paper and Converting Machinery and Equipment Trade Mission to Brazil. Dec. 1-10. The Brazilian pulp and paper industry has grown rapidly over the last ten years in order to satisfy an exploding domestic demand. Production doubled in the 1967-1973 period alone. Foreign investors have begun showing interest in Brazil as a source of pulp and paper for the world market over the medium and long-term. To date, exports have not been

significant, and imports have grown substantially. However, ambitious plans have been announced to make Brazil both self-sufficient in paper and a major exporter of pulp (two million tons) by 1980. Investments of $2.75 billion will be required for achievement of the 1980 goals. Forty percent of this, or $1.1 billion, has yet to be committed, according to government figures. Longer-term goals (over the next 20 years) see investment of $17 billion in the pulp and paper industry and export earnings of $51 billion. Call William J. Bushwaller, 202-377-4511.

U.S. Exhibition in Second Dakar International Fair. Dec. 3-12. In 1974 this exposition attracted 500,000 visitors with 670 firms from 44 countries participating. Senegalese development expenditures of over $500 million a year, rising interest in U.S. sources of supply, an improved U.S. competitive position due to the recent ending of EEC reverse preferences, and extensive regional sales prospects, provide enterprising American firms an excellent opportunity for market penetration and development. Commerce's pavillion will accomodate 20 U.S. manufacturers of diverse equipment. Philip Michelini, 202-377-5148.

Catalog Exhibitions on Do-It-Yourself Equipment and Products. Brussels, Dec. 4-12, and Utrecht, Jan. 24-30. These shows will be organized by the U.S. Department of Commerce at two major European exhibitions, "Hobby 76" at the Rogier Center in Brussels and "Karwei 77" at the Royal Netherlands Industries Fairgrounds in Utrecht. The growing cost of services related to home rehabilitation, limited expansion of new construction, inflation and tight money are encouraging growth in the do-it-yourself field in both Belgium and the Netherlands. These trends also have made U.S. products more price competitive in Europe and have created an excellent marketing opportunity for those manufacturers selling do-it-yourself equipment or products. Robert Peterson, 202-377-3973.

Hospital and Medical Equipment and Supplies Catalog Exhibit. Port of Spain, Trinidad and Santo Domingo, Dominican Republic. Dec. 6-10. Both countries are embarking and updating programs in the field of health care. Trinidad, entirely dependent on foreign suppliers for its hospital and medical equipment and supplies, has obtained sizable loans from the World Bank and the Inter-American Development Bank to implement its programs. The Dominican Republic is attempting to expand its health care into the rural areas, while fortifying existing facilities and building new ones in its cities. Both countries place increasing emphasis on the purchase of medical and surgical equipment, hospital equipment and disposables. These are markets where American exporters are already doing well and are expected to do much better, due to proximity and due to Trinidad's recent alignment with the U.S. dollar and abolition of Commonwealth Preferences in its tariff structure. Robert E. Peterson, 202-377-3973.

Industrial Process Controls Exhibition and Seminar. U.S. Regional Trade Center, Singapore. Dec. 6-10. The Singapore Government's plans for a major petrochemical complex and new construction in the electrical energy sector are expected to push sales of process control instrumentation to $12.5 million by 1978. Singapore's requirements for these products are met entirely by imports. To participate contact J. Lee Barnes, 202-377-3893.

ECOLOGY '77—Environmental Purification and Pollution Control Instrumentation and Equipment. U.S. Trade Center for Scandinavia, Stockholm. Dec. 6-10. Sweden, Norway, Denmark and Finland, currently and individually warring against pollution, have programmed an aggregate total of $2 billion plus to be spent on environmental protection by 1984. A significant portion of this amount will be earmarked for the purchase of instrumentation, equipment and controls. Robert J. Blake, 202-377-3088.

Plant Engineering and Operations Equipment Exhibition. U.S. Trade Center, Mexico City. Dec. 6-10. Mexico's rapid strides toward industrialization have created a strong demand for broad-based plant modernization equipment. This show will feature and focus in on selected lines of equipment designed for inside-the-plant operations, principally in the areas of: industrial water treatment; specialized materials handling devices; assembly line automation; industrial machinery lubrication; in-plant pollution prevention and control; and pneumatic/hydraulic controls and systems. All of these categories are finding an increasing market within the sectors of Mexican medium and heavy industry establishments which are desirous of achieving higher output and efficiency through plant modernization. Damon LaBrie, 202-377-4463.

Offshore International Exhibition. Birmingham, England. Dec. 7-10. The continuing development of North Sea oil resources offers good opportunities for U.S. suppliers of oil and gas field exploration, production and transmission equipment, instruments, systems, supplies and services. U.S. exports of oilfield equipment and pipe to countries active in the North Sea oilfields are substantial and growing. U.S. exports to the United Kingdom alone in 1975 totaled $32 million, up from $19 million in 1974 and $11 million in 1973. Demand is highest for oilfield equipment and pipe, but sales opportunities also exist for a wide range of supportive products, e.g., floating structures (rigs, barges, vessels, tanks, etc.), helicopters, telecommunications equipment, valves, processing and field instruments, welding equipment and drilling fluid. At least five new North Sea fields are expected to open by the end of this year. A $3 billion market for products and services is expected in 1976, with the total rising to $5 billion by 1980. Official exhibits will be mounted by many countries. George A. Kemp, 202-377-3713.

Advance Business Equipment and Systems Exhibition and Seminar. Taipei. Dec. 13-17. This JEEP (Joint Export Establishment Promotion — for new-to-market participants only) will focus on a rapidly growing market in the Republic of China. The economy in Taiwan has recovered strongly from the recent world recession. Imports of U.S.-produced business equipment and systems are expected to reach $17.5 million by 1979—up from $11.2 million in 1974. Peter Wilson, 202-377-4227.

Building Products and Construction Equipment Catalog Exhibit. Philippines, Thailand and Malaysia. January. All three countries are initiating aggressive building programs and expect to import most or all of the building products and construction equipment required. Pre-engineered and modular construction are either established techniques or are gaining wide acceptance in all three markets. Reinforced concrete, wood-frame, hollow building block, and structural steel are the common building techniques. Aluminum and wood are used for window and door frames. The program in the Philippines is the most dynamic, with an expected 40 percent growth in consumption of building products and construction equipment by 1980. The programs of the other two are highly promising, enhanced further by the fact that they import nearly all that they use in this field. Robert E. Peterson, 202-377-3973.

Pet Products Exhibit (JEEP). Paris. Jan. 10-13. By 1985, France is expected to be the largest market in all of Europe for pet foods and accessories. Its 51 million residents currently care for some 7.5 million dogs, 7.5 million cats and the contents of 2 million bird cages and 1 million aquariums. One family in two has at least one pet. Because of the market's growth rate, good opportunities exist for American firms to introduce new products. Some 6-8 new-to-market firms will be eligible for this event. Ned Krause, 202-377-5381.

Microwave Technology and Test Instruments—Joint Export Establishment Promotion (JEEP). U.S. Trade Center, Paris. Jan. 19-21. With the French Government's recently announced plan to expend $30 billion during the next 5 years to modernize the national telephone system and with the recognized technical superiority of U.S.-made microwave products and test equipment, France promises to be a prime export market for U.S. manufacturers. This Trade Center event is an excellent and inexpensive opportunity for 6-8 new-to-market firms to find representation and to claim a share of the French microwave market, which is expected to grow at an annual rate of 20 percent for the next several years. Products to be featured include components, circuits, test and measurement instruments, equipment and systems, and antennae. Contact George Ruffner, 202-377-5381.

Business Equipment and Systems Exhibition. U.S. Trade Centers, Paris, Jan. 31-Feb. 3; London, Feb. 8-11. These events will provide exceptional sales opportunities for American manufacturers. Past experience has shown that they attract executives influential in the purchase of equipment. The U.S. Trade Centers in Paris and London provide an effective and economical means of reaching buyers or setting up distribution. Exhibitor's contribution fee is $900 for companies new-to-market and $2,000 for those already established. Dwight L. Umstead, 202-377-4414 or 2177.

Avionics and Ground Support Equipment Technical Sales Seminar. Greece, Italy and Yugoslavia. Feb. 1-10. Seminar sessions will be conducted in Athens, Rome and Belgrade. "State of the art" presentations emphasizing the latest technological achievements in specific areas of avionics and ground support equipment will be given. Product categories to be included encompass communications such as traffic controls and flight instrumentation such as navigational aids commonly found in aircraft. Also, terminal support equipment and products used to test and service aircraft and aircraft engines as well as baggage and cargo handling systems. Airport and aircraft requirements are expanding rapidly as efforts are made to modernize and improve air transportation systems in these countries. W. Bradley Tyrrell, 202-377-5285.

Licensing, Investment Abroad

Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) Manual.

Background information on opportunities abroad and assistance on overseas investments are available from the Overseas Products and Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. "P" numbers should be used when responding to any of the specific proposals listed.

WTDR indicates that a World Traders Data Report containing financial and background information on the foreign firm is available for $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230, or from any Commerce District Office.

OPIC indicates that the country involved is eligible for investment insurance coverage and financing from the Overseas Private Investment Corporation. Information regarding applicable coverage may be obtained from OPIC, Washington, D.C. 20527.

2392 — UNITED KINGDOM — Company seeks diversification into **new textile technologies or light engineering utilizing present production and marketing know-how.** Acquisitions, licensing, joint ventures and agency/distributorships are of interest. Firm is manufacturer of quilts, pillows, sleeping bags, with interest, through wholly owned subsidiary, in manufacturing and installation of aluminum window frame double-glazing units. Employs 350. T. W. L. Kay, Mng. Dir., Fios Group Ltd., Greendykes Industrial Estate, Broxburn, West Lothian, Scotland. P-76608.

2640—FRANCE — Seeks to manufacture under license and distribute **specialty papers.** Established 1836, firm employs 170 and operates 2 plants. Produces several types of papers. Annual sales, $25 million. M. J. Heulot, Mgr., Papetries Leon Riquet, 48, rue des Maraichers, 75020 Paris. P-76570.

2821—INDIA — Seeks collaboration with U.S. suppliers of technology and equipment to establish **first melamine plant** in India. Proposed to use closed cycle or total recycle process based on urea to produce 5,000 metric tons of melamine annually. Project is estimated to cost about 105 million rupees, including estimated foreign exchange component of 35 million rupees. Indian firm is sponsored by Assam State Government; has just established new factory at Namrup to produce urea formaldehyde and other chemicals. Has received preliminary approval and official clearance for foreign collaboration for melamine project. G. S. Harnal, Mng. Dir., Assam Petrochemicals Ltd., Namrup 786621, Assam, or Assam Industrial Development Corporation Ltd., Zoo Road, Gauhati 781001, Assam. P-76571. OPIC.

2834, 2844—MEXICO—Seeks licenses to manufacture **pharmaceutical and cosmetic products.** Firm was founded in 1954, has 45 employees, authorized capital of $185,000. Is 100 percent Mexican owned, manufactures ethical drugs, has no licensing agreements with any U.S. firm. Correspondence can be in English. Ramon Del Villar, Gen. Mgr., Laboratorios Orla, SA, Matri No. 252, Mexico 18, D.F. Telephone, 516-0860. P-76572. WTDR.

2851, 2891—AUSTRALIA—Seeks licenses to manufacture **new products capable of being formulated by a chemical manufacturer for household, home repair, recreation, hobby and boating markets, both commercial and industrial.** Firm is willing to begin by importing finished products; representative will visit U.S. if required. Firm is basic chemical producer which sells to manufacturers; has consumer products division. Eric R. Barton, Mktg. Mgr., Hardman Chemicals Pty. Ltd., Park Road, Seven Hills, N.S.W. 2147. WTDR. P-76573.

2851—YUGOSLAVIA — Seeks technology to produce **industrial and household detergents.** Open to joint venture or licensing arrangement. Firm wishes to expand its productions of household detergents and enter field of industrial detergents. Interested in products for bottling plants, breweries, slaughterhouses using formulas based on special ingredients. Basic raw materials for production are available locally; special ingredients would be imported from U.S. partner. Employs 3,500, has annual sales of about $60 million. It manufactures alkalies, chlorines, agricultural chemicals, PVC resins, synthetic fibers. Trajan Gavrilski, Dep. Dir. Gen., Ohis-Organsko Hemijska Industrija, PP 555, 91001 Skopje. Telex, 51139; telephone (091) 37210 and 37410. WTDR. P-76599. OPIC.

2891, 3951, 3955—AUSTRIA — Leading manufacturer of office supplies, adhesive tapes and special papers seeks licensing agreements for production of: **office supplies, educational and training consumables, packaging and mail room supplies, hobby items, adhesives including application equipment and systems.** Firm is also interested in distributorship agreements for these items. Large portion of company's production is exported worldwide. Established in 1887, employs over 1,000; has annual sales of $30 million. W. Koreska GmbH, Postfach 65, Perfektastrasse 85, A-1235 Vienna. WTDR. P-76607.

2891—MEXICO — Seeks technology to manufacture **polyurethane products such as industrial coatings and paints, fabric coating resins (in solution), emulsions/lattices, and adhesives for packaging and laminating;** also other items including **flock adhesives and adhesives for plastics.** Organized in 1965, firm has 50 employees, annual sales of $4.8 million. Makes polysocyantes, flock adhesives, shoe adhesives and leather coatings. Robert H. Ban, Development Engineer, Simon, S.A., Tochtli No. 236, Frac. Ind. San Antonio, Mexico 16, D.F. Telephone, 561-2511. WTDR. P-76610.

3079 — GERMANY — Seeks licenses to manufacture **chemically blown sponges, open and closed cell, and foamed plastic polyurethane products.** Firm is a leading manufacturer of rubber hoses, conveyor belts, molded rubber goods and plastic foam products. Established in 1896, has 1,300 employees, annual sales of $38 million. Thomas H. Caswell, Commercial Officer, File #003, U.S. Con. Gen., 5 Ceilienallee, 4000 Duesseldorf 30. P-76574.

3079—GERMANY — Seeks technology to produce **hard plastic food trays for use in hospitals, restaurants and households.** Founded 1839, firm is a leading manufacturer of its kind in West Germany; exports to neighboring countries. Employs 60, has annual sales of $1.4 million. Joseph Hansmann, Gebrueder ADT GmbH, Brueckenstrasse 12, D-6480 Waechtersbach 1. Cable, ADTWERKE; telephone, 06053-341; telex 04 184 396. P-76575.

3229—GERMANY — Seeks joint venture and/or sales arrangement with U.S. company to produce **industrial glassware.** Firm presently manufactures hand blown glassware, exports to the common market countries. Established in 1864; employs 30. Mr. Truelsen, Glasfabrik Ernst Friedrich K.G., 1-3 Erfurter Strasse, 2351 Trappenkamp. P-76585.

3272, 3292—FRANCE — Manufacturer of various building products (gypsum, plaster, concrete, adhesives), seeks licensing arrangement for production of any types of **building materials and equipment.** Is also interested in acting as an agent or distributor for same products. Established 1901; employs 5,000, has annual sales over $500 million. Jeffrey Steiner, Int'l Mgr., Poliet & Chausson, 21, rue des Ardennes, 75019 Paris. P-76594.

3272—MEXICO—Seeks joint venture for complete **gravel plant,** including extraction, transportation, warehousing, crushing and shipment of stone. Permits from Secretaria Del Patriomonio Nacional (Secretariat of Nat'l Patrimony), Secretaria De Marina (Navy Dept.) and Secretaria De Hacienda (Finance Dept.), available. Project requires construction machines, barges and other equipment at $1.2 million. Correspondence should be in Spanish. Carlos Manuel Daza, Colima No. 101 (Esq. Independencia), Col. Petrolera, Coatzacoalcos, Ver. Telephone, 228-82. P-76576.

3400 — FRANCE — Manufacturer of variety of metal products, including **slewing rings with cross roller or ball bearing arrangement, crowns for automobile and truck starters, valve seats, frames for electric motors, and stainless steel valves for food industry,** seeks licensing arrangements to produce complementary lines. Would also distribute these products through its large sales network. Representative will be in U.S. during September. If interested in meeting with representative, contact Overseas Products and Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. Telephone, 202-377-3786. P-76577.

3420, 3600—FRANCE — Firm interested in manufacturing under license various types of **tools, fasteners, building materials and electrical equipment.** Company would also act as agent or distributor for same products. Established 1959, employs 800. Ph. Bachler, Export Mgr., Plombelec, B.P. 31. 45130 Meung-sur-Loire. P-76578.

3443—BELGIUM—Manufacturer of **steel tanks and steel containers for gas** seeks to establish licensing arrangement with one or more U.S. firms active in same

field. Present clients are petrochemical industries and oil refineries. Capable of constructing tanks up to 5,000 liters. H. Willaert, Purchasing Mgr., N. V. Van Leer, Bollaarstraat 6, 2500 Lier. Telex, 31 927; phone, 031/80 22 65. P-76579.

3443—GREECE — Seeks **technology and equipment to convert oil based industries to lignite coal burning facilities.** Will consider joint venture to produce required boilers. Machinery and equipment should be suitable for plants producing quick lime or ceramic products, also distilleries. Firm is said to be largest private producer of lignite in Greece with mine sites having verified lignite deposits of 40 million tons, and production capacity of 350,000 tons per year. Company also interested in new technology to use lignite for other purposes such as gasification, fertilizers, chemical products. Will consider consultant relationship with U.S. firm specializing in such technology. Constantine G. Varvoutis, Omirou 58, Athens 135. Telephone, 0609451-53. P-76606. OPIC.

3446 — NETHERLANDS — Manufacturer of aluminum ladders, scaffolding, step ladders and related goods is interested in receiving business proposals for manufacture under license and sale of **lightweight scaffolding, pallets and skids, and products for leisure-time activities.** Has four branches in Netherlands and subsidiaries in several European countries. W. T. Visser, Office Mgr., Bijstede BV, Industrieweg 66, P.O. Box 23, Munspeet. P-76580.

3496—BELGIUM—Firm seeks joint venture or licensing proposal from American company in field that would complement its **steel wire and cordage program.** Produces steel wire rope and exports 50 percent of its production to world markets. Has division for binder and baler twine manufacturing which it intends to close down. A third division produces cordage. Company states it can count on Belgian Government subsidies if joint venture proposal would require substantial new investment, as well as on extensive financial backing of its own group. H. Termote, Mgr., Le Lis N.V., Boontje 10, 9160 Hamme. P-76595.

3519—AUSTRALIA—Firm seeks to manufacture under license **diesel auxiliary engines** up to 20 hp. for use in small boats. Also prepared to import initially. R. Woodward, Mktg. Mgr., Westinghouse Brake & Signal Co. Pty. Ltd., 27 George St., Concord, N.S.W. 2138. P-76600.

3523—YUGOSLAVIA—Large firm seeks joint venture or licensing arrangement to produce **agricultural equipment** as follows: harvesting, transportation, warehousing and drying equipment for feed systems; equipment for mechanized production of fruits and vegetables; harvesters for soybeans, beans, peas, seed; combined equipment for presowing land preparation; specialized sowing machines and cultivators; transporters for wine grapes, other fruits and vegetables; grain and seed dryers. Additional information from Overseas Products and Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76581. OPIC.

3540 — SWITZERLAND — Prominent licensing consultant is interested in meeting with American firms seeking licensees in Europe. Plans to visit U.S. Sept. 10-25; itinerary includes San Francisco, Los Angeles, Boston, New York. Products of special interest are **high precision machinery, tools, machine tools including industrial controls and possible diversification of textile plant.** Also prepared to discuss other licensing, marketing opportunities. Swiss businessman has solid background in licensing, has organized several European seminars on subject. Pierre Hug, Pres., Hug Interlizenz AG, Alte Zubrcherstrasse 49, 8903 Birmensdorf, Zurich. Telephone, 01/ 95 49 61; telex, 57544; cable, HUGLHHQNS BIRMENSDORF. Addresses in U.S. will be c/o Walter Hofer ,221 W. 57th St., New York, N.Y. 10019, telephone, 212-582-5030 and telex, 064/422 062; or West Coast, c/o Buskin, Kopelson, Walsh. Trugmann, 270 N. Canon Drive, 3rd Floor, Beverly Hills, Calif. 90210; telephone, 213-273-7505; telex, 0650/698109. P-76582.

3545, 3832 — GERMANY — Firm seeks licensing agreements for manufacture of **optical rotating generators up to 10,000 impulses/360°, optical angular coders up to 10,000 parts/360°, optical longitudinal ated counters for indication and preselection, compression boxes up to 500 bar (accuracy 0.5% and 0.2%), and fluxmeter boxes up to 100 kn (accuracy 0.5% and 0.2%).** Herr Lenord, Gesellschaft fuer Elektronik Lenord & Co., Dohlenstr. 32, 4200 Oberhausen-Sterkrade. P-76597.

3559—FRANCE—Engineering and design firm seeks **non-exclusive license for water treatment processes.** Specializes in water treatment, environmental protection, energy and fluids. Employs 50 engineers and technicians; operates three laboratories. Has offices in several French cities. Firm is experienced in design, evaluation and control of industrial, drinking and domestic water systems. Guigues SA, 1 Allee de la Bastide des Cypres, 13100 Aix-en-Provence. P-76583.

3559—SWITZERLAND — Seeks licenses to manufacture products for inclusion in its own **waste water treatment systems** which are sold to metalworking industries throughout Europe. Products of special interest are: **ultrafiltration equipment for neutralization plants, reverse osmosis systems for treatment of chemical solutions, membrane filters for same applications, and centrifuge type oil water separators and brand-type filters.** Also interested in **licensing agreements for automatic feeders and loading arms for use with machine tools.** Swiss firm is actively marketing its waste water treatment systems. Operates modern production facility. Part of a prominent Swiss concern. Mr. Rickli, Maschinenfabrik Meyer AG, 4707 Deitingen. Further details available from Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-76602.

3561 — BRAZIL — Medium sized **pump** manufacturer seeks to expand production. Is interested in license or similar arrangement to produce **submersible pumps for tubular wells, pumps for chemical industry and process pumps for petroleum industry.** Presently makes centrifugal single-stage pumps, irrigation, injector contractor and swimming pool pumps. Firm is well managed. Reynold Gerard Keel, Gen. Mgr., Equipamentos Mark Ltd., Caixa Postal 49, 09900 Diadema (SP). P-76609. OPIC.

3561—FRANCE—Seeks license or distribution agreement to produce **special pumps for waste water, sewage purification equipment, air compressors and water pollution control equipment.** Presently, firm makes submersible, vacuum and centrifugal pumps. Also is distributor for several foreign firms. Mr. Malabar, Pres., Baudot Hardoll SA, 136 route de Fleury, 91170 Viry Chatillon. P-76603.

3569—GERMANY — Seeks licenses for **industrial pressure filters** (excluding automotive filters and industrial centrifuges). Firm is also interested in exchange of **know-how in reverse osmosis water purification.** Specializes in industrial filters, is well known in Germany for its technology in this field. Employs 45, good reputation. Ludwig Bergsmann, Mgr., BEDA Filtertechnik GmbH & Co., Vertriebs KB, Bodmaner Strasse 2, D-7760 Radolfzell 14 (Stahringen). Phone, 07738-5036; telex, 793771. WTDR. P-76584.

3585—MEXICO—Interested in license to manufacture **commercial refrigeration equipment for restaurants and supermarkets.** Seeks technical know-how and patent or trademark. Return offered U.S. licensor is fixed fee. The Mexican conglomerate is expanding its product line to include commercial refrigeration. Hans A. Frey, Empresas Nieto, S.A., Aptdo. Postal No. 63, Celaya, Guanajuato. P-76604.

3613, 3679—ECUADOR—Large distributor of electrical equipment seeks American manufacturer interested in granting patent name and supplying **components for local assembly of load centers and electric load center circuit breakers.** Capital wil be contributed by local firm. Compensation to foreign participant to be in the form of royalties. However, local firm also willing to discuss foreign capital participation under Andean Pact limitations. Estimated monthly production: 800 load centers, 10,000 circuit breakers. These production figures could be increased depending upon eventual permission to export to other Andean Pact countries. Raw materials to be obtained from U.S. partner. Gunter A. Chanage, E.E., M.E., Gen. Mgr., Electro Comercial Chanage Cia., Ltd., P.O. Box 8423, Guayaquil. WTDR. P-76611. OPIC.

3631—ECUADOR—Seeks license to assemble **small household electric appliances such as waffle irons, food blenders, hot plates and coffee percolators.** Also interested in assembling **sound equipment for entertainment purposes.** Local firm would provide capital, plant site and equipment. Would purchase components from U.S. licensor. Ecuadorean company has experience in assembly of console type record players. Selim Doumet A., Ass't. Mgr., Deca Cia. Ltda., P.O. Box 5237, Guayaquil. WTDR. P-76585. OPIC.

3661—UNITED KINGDOM—Small company seeks to manufacture **business or marine communications equipment** under license. Distributes amateur HF and VHF communications equipment, antennas, headphones, power meters and accessories. Presently represents several foreign companies. K. W. Perfect, Amateur Electronics UK, 508-514 Alum Rock Road, Alum Rock, Birmingham B8 3HX, England. P-76587.

3662—BELGIUM — Medium-sized firm seeks subcontract for **geophone stringing work.** Produces magnetic read-write heads for computer memories (tape and disc); also markets other computer products such as geophysical equipment, computer terminals, P.C. boards and core memories. Employs 120. R. J. Laureys, Gen. Mgr., Applied Magnetics Belgium n.v., Industriezone, Raadsherenstraat 3, 2300 Turnhout. Telex, 31831; telephone, 014/41 59 11. P-76588.

3674—PHILIPPINES—Seeks joint venture to produce **semiconductors and other**

micro-electronic circuits. Would supply international markets. Firm is affiliated with well known and diversified Filipino business group. For further details, contact Salvador Palanca, Ass't. to Treasurer, La Tondena Inc., Carlos Palanca St., Quiapo, Manila. P-76589. OPIC.

3679—FRANCE—Seeks subcontracting or licensing arrangement to manufacture **electrical, electronic or pneumatic components.** Presently, firm makes electric panels. Employs 75; good reputation. M. Jean Alletru, Ass't. Gen. Mgr., Tableaux Electricques de Picardie (TELEP), Z. I. Rouvroy, B. P. 218, 02106 Saint-Quentin. P-76590.

Financing Sought For Tourism Projects In Central America

Eight tourism projects in Central American countries and Panama are in need of financing. Both loans and equity investments are desired. The projects have been developed by Secretaria de Integracion Turistica Centroamericano (SITCA). SITCA is an office organized by five Central American countries, Panama, and the U.S. Agency for International Development, to promote the development, financing, and marketing of well-planned hotel and tourism facilities in Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama.

Thorough feasibility studies have been completed for the projects, and they have received proper government support. Detailed information about the facilities (briefly described below) is available through Sea Pines Associates, Hilton Head Island, S.C. 29948; telephone, 803-785-3333. P-76626. OPIC.

Tela, Honduras. Resort community consisting of 200-room hotel, 300 condominiums, 610 single-family homesites, 205 townhouses, 60 terraced apartments, golf course, four tennis courts, marina, three restaurants, 2 bars, and disco areas. Name of resort, El Paraiso; financing sought, $4.3 million.

Lake Ilopango, El Salvador. Hotel/apartment/condominium complex in which Phase I facilities include 70 apartments, small grocery store, coffee shop, bar, swimming pool, and parking lot for 100 cars. Phase II includes a yacht club, 42 additional apartments, 42 condominium units, restaurant and coffee shop, swimming pool and parking lot for 50 cars. Phase III facilities to be provided are a private social club house, restaurant, a bridge connecting the island to the mainland, night club-restaurant, marina and several cottages. Resort, Isla Verde; financing sought, $2.5 million.

Jaltepeque Peninsula, El Salvador. Ocean front hotel sites along the pacific coast of El Salvador. All properties are considered to be prime ocean fronts. Prices include a paved access road as well as water, sewer, telephone and electrical utilities provided on the properties. Area, Costa Del Sol; price per acre, $81,060.

Rio Mar, Panama. Resort complex consisting of one main building containing 26 units and a restaurant, five one-bedroom cabins with separate baths, four double cabins with a collective bath. Plans call for modernization and expansion of existing facilities. Resort, Rio Mar; financing sought, $505,000.

Pinas Bay, Panama. Salt water game fishing resort is for sale. Facilities include a club house, five cabins, employee dormitory, swimming pool, dry dock, nine Betram deep sea fishing boats and three Sea Craft fishing boats. Additionally, 12,000 acres of undeveloped land are included in the sale. Resort, Tropic Star Lodge; price of all facilities and land, $500,000.

Lake Atitlan, Guatemala. A complex consisting of 193 apartments, restaurant, cafeteria, lounge/bar/discotheque, swimming pool, sauna and health club. Resort, Los Torres De Atitlan; financing sought, $1.5 million.

Puntarenas, Costa Rica. A large beachfront hotel consisting of 225 rooms, five shops, bar, restaurant and several meeting rooms. Recreational facilities will also be provided. Hotel, Amstel Cocal, financing needed, $3 million.

Lagomar, Panama. A year-round hotel and resort complex which will include a 56-room hotel with 4 luxury suites, 20 bungalows, conference center with a capacity for 200 persons, casino, coffee shop, discotheque, barber shop and beauty salon, sauna, swimming pool, two tennis courts, and a golf course. Resort, Playa Esmeralda; investment required, $3.4 million.

Licensing In U.S.

For additional information on these opportunities to manufacture foreign firms' products in the United States under a licensing agreement or in partnership, write the Domestic Investment Services Staff, Bureau of International Commerce, Room 4020, U.S. Department of Commerce, Washington, D.C. 20230 (202-377-2248), referring to the appropriate file number.

AUSTRALIA—Firm manufacturing **attache cases incorporating folding umbrella** wishes to arrange for its manufacture under license in U.S. File 3073

AUSTRIA—Firm wishes to establish contact with U.S. manufacturer to work out arrangement for manufacturing in both U.S. and Austria. Is primarily interested in industrial and commercial **air conditioning equipment, industrial processing equipment, materials handling equipment and technical novelties.** Is presently making die blocks for production of injection molded forms for weight up to four kilograms. In addition, it operates a powder coating plant for plastic coating of metal parts. File 3074

AUSTRIA—Firm is interested in making arrangements with U.S. firm concerning production of a **soft contact lens, and lenses which can absorb a certain quantity of liquids.** File 3075

FRANCE—Manufacturer of gears, transmissions, speed changers and drives wishes to work out licensing arrangements with U.S. firm. File 3076

ITALY—Architect who holds several patents in Italy and U.S. for reinforced, modular designed, prefabricated, **concrete structures** would like to contact public urban organizations and general contracting organizations to work out joint-venture business arrangement. File 3077

GERMANY—Well reputed German manufacturer of road construction machinery would like to make two-way arrangement for manufacturing license for its **storage bins, conveyor belts and screening equipment** used in construction of bituminous roads; **bituminous road construction equipment** with heat resisting qualities which it has developed. File 3078

GERMANY—Manufacturer of mobile cranes is interested in establishing manufacturing facility in U.S. for production of its 12-, 27- and 40-ton mobile, **truck-mounted cranes and telescopic jib.** Would provide employment of some 50-60 persons. Form of investment open to discussion. File 3079

GERMANY—Manufacturer of **metal screws, nuts and bolts** is interested in establishing facility to manufacture these products in U.S. Form of investment open to discussion. File 3080

GERMANY—Large manufacturer of **machines for saw-sharpening, saw-swagging, equalizing, hardening, filling,** and **saw setting, roll saw stretchers,** and **tensioning benches** wishes to start own production in U.S. While form of investment is open to discussion, preference would be to purchase. File 3081

GERMANY—Very large manufacturer of **shucking tools,** who already has representatives in various cities in U.S., wants to start own production plant in U.S. Firm is only interested in purchase arrangements. File 3082

GERMANY—Firm wishes to establish **nursery** in U.S. that would produce and export patented varieties of **African violets** under trademark. U.S. nursery would reproduce plants from leaves of mother plants which would be imported originally from German firm. In 1975, firm exported over 12 million plants to Australia, European countries, South Africa and Japan. While form of investment is open to discussion, top priority would be buy-out of small nursery with approximately 50,000 sq. ft. of greenhouse space and land for expansion. File 3083

GERMANY—Old, established German firm offers 2-way licensing arrangement with American firm to manufacture **conveyor systems** primarily for furniture industry and metal working machinery. File 3084

GERMANY—One of four largest German manufacturers of **hair cosmetics** seeks U.S. company to take over manufacture and distribution of its products in U.S. Production program includes shampoos, tints, bleaches, permanent waving, lotions, neutralizers, setting lotions, conditioners, texturizers, accessories. File 3085

GERMANY—Independent inventor of photographic equipment is offering **three-dimensional camera** for reverse licensing. Many of his inventions have been patented worldwide and have found ready market. Three dimensional camera is his latest invention. It includes development equipment. Sale of this camera has reportedly been successful in British market but it is not yet on American market. File 3086

GERMANY—Manufacturer of **compressors for refrigeration industry** is looking for joint venture partner in U.S. German manufacturer is of medium size, manufactures compressors for refrigeration plants and equipment. Form of investment is open to discussion. File 3087

GERMANY—Firm offers licenses for molded and foamed **thermoplastic, polyurethane and polyvinylchlorides.** Firm is a leading W. German manufacturer of adhesives used in chemical, plastics and leather industries, and is exporting its products worldwide. File 3088

The following trade opportunities are based on reports received from the U.S. Foreign Service—Department of State by the Trade Opportunities Division, Room 2323, U.S. Department of Commerce, Washington, D.C. 20230. The commodities in which foreign firms have interest are indicated by the five-digit numbers and commodity classifications which are from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1972 Census of Manufactures.

U.S. firms should be aware that the listing in Commerce America *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Department of Commerce pursuant to the Export Administration Act of 1969. Applicable export licensing regulations must be followed.*

Every effort is made to include only traders with good reputations. However, the Department cannot be responsible for any trade relations.

WTDR indicates that a World Traders Data Report on this specific firm is available at $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230. A WTDR is a trade profile which contains commercial information including financial references, on an individual foreign firm. Orders must include complete name and address of the subject firm and be accompanied by payment. Further information concerning WTDRs and request forms are available at each Commerce District Office.

The mark (●) indicates that this trade opportunity is a request for bids by a foreign government agency.

Direct Sales

Broad woven fabric mills, cotton

● **22110—ZAMBIA** — Government Stores Department, Tender No. MF/GS/433, for 45,000 cloths (floor, glass and kitchen); 36,000 dusters; and 20,000 towels (hand and bath) per annum. Closing date Sept. 17. Samples offered must be forwarded (shipment paid) to Director of Supplies, P.O. Box 476, Lusaka. Copies of tender document available from Director of Supplies.

Knitting mills, products

● **22530—ZAMBIA** — Government Stores Department, Tender No. MF/GS/429, for 8,000 white military-type shirts. Closing date Sept. 10. Copies of tender documents and samples available from Director of Supplies, Government Stores, P.O. Box 476, Lusaka.

Textile goods

22993XX—BOLIVIA—Wool fabrics for men & women's apparel; dacron, or equal, fabrics all types & colors. Corres. in Spanish. Reply to—Casa Montalvo E. Hijos, Avenida Domingo Paz 764, Tarija.

Millwork, veneer, plywood, prefabricated structural wood products

● **24300—ZAMBIA**—Central Supply and Tender Board, P.O. Box 1009, Lusaka, requests bids for 1,500 ledged and braced batten doors, 4,800 flush and mosquito doors, and 1,900 flush doors faced with tempered hardboard, between Nov. 1, 1976 and Oct. 31, 1977. A sample of each type door offered must be forwarded, shipment paid, to the Director of Stores, P.O. Box 476, Lusaka. Closing date Aug. 27. Detailed specifications and general instructions available from U.S. Department of Commerce, Construction and Forest Products Division, Room 2112, Washington, D.C. 20230, 202-377-3365.

Drugs

28310, 28330—FRANCE — Government-controlled corporation seeks suppliers of diagnostic and other biological products for human and veterinary applications. Also antibiotics for veterinary and food uses. Contact Jean Michel DeJeammes, Societe Nationale Des Poudors et Explosifs, 12, Quai Henri V, 75004 Paris; Cable — Natpoudres; Telex — 220 356 Poudres Paris; Telephone 277-1570.

28340, 28410—GERMANY — Well-known German manufacturer of health care products, soap and detergents plans to invest $20 million in either a joint U.S. venture or acquiring financial participation in existing U.S. firm in its field. Interested parties contact: R. Heumann, American Consulate General, File # 005, Box 515, APO New York 09080.

28340 — PAKISTAN — 50,000 bags (1000CC) dextrose (5 percent)—saline (0.9 percent with needles); 50,000 bags (1000CC) dextrose (5 percent); required by medium-sized importer (annual sales $300,000/yr.). Contact Y. Y. Saya, Sabereen Corp., Moolji St., Off Newnham Road, Karachi 2; cable "Guleanar" Karachi; telephone 234285.

28340—ZAIRE—The Societe Africaine Austro-Zairoise, a Technoma AG affiliate, is coordinating the procurement of medical supplies (valued at $5 million) for Zaire's military support. For further information contact Mr. Zimmermann, Technoma AG, Postfach 110A, 6301 Zug, Switzerland; Telex 72 114 TEMA.

● **28340—ZAMBIA**—Ministry of Health seeks bids on 40 and 80-unit insulin (soluble, protamine zinc, zinc suspension lente, amorphous and crystalline). Closing date Aug. 13. Tender No. MF/MED/443. Tender documents available from U.S. Department of Commerce, Room 2104, Washington, D.C. 20230.

Gum, wood chemicals

28690, 28790, 28920—FRANCE—Government-controlled corporation seeks U.S. sources of pesticides and other organic chemicals, insecticidal, herbicidal and fungicidal preparations including soil fumigants, and explosives (solid and slurry). Jean Michel DeJeammes, Societe Nationale des Poudors et Explosifs, 12 Quai Henri V, 75004 Paris.

Agricultural chemicals

● **28790—CAMEROON**—Supply of pesticides and equipment for application. Pesticides to combat brown decay in cocoa pods, anthracnose in Arabica coffee beans, early death of cocoa trees, antestia of Arabica coffee plants, scolytes of Robusta coffee plants, and insects affecting germination and nursery plantings. Bid deadline Sept. 20. Tender documents available for 25,000 CFA francs ($116) from Monsieur le Directeur General, Fonds National du Developpement Rural, B.P. 1548, Yaounde; address bids to same, in English or French.

● **28790—ZAMBIA**—Supply of pesticide products as follows: 385,000 liters of disinfectants in 1, 5 and 45-gal. containers; 150,000 aerosol cans of insecticide; 40,000 liters of liquid insecticide in 1-gal. containers; 25,000 liters of liquid concentrate insecticide in 1-gal. containers; 2,500, 500-g. packets of DDT—10 percent powder; 2,000, 500-g. packets of DDT—50 percent powder; 2,000 1-kg. packets of DDT—50 percent powder; 3,000, 5-liter cans of carbolineum preservative; 3,000, 5-liter cans of wood preservative. Tender number MF/GS/434. Send bids to Secretary, Republic of Zambia Central Supply and Tender Board, P.O. Box 1009, Lusaka. Bid deadline Sept. 17. Tender documents available from BDC/OBRA, Room 2104, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-3420.

Plastic products

3079813—PORTUGAL—Cellophane, to be used for annual production of 1,000,000 packs of cigarettes. Firm enjoys good reputation as reported by local references. Reply to—Farinha Dos Santos, Cepric-Centro de Promocao Industrial de Comercial, Lda., 47/3/D Av. Visconde Devalmor, Lisbon 1. Telex 12711 Cepric P; tel 762172.

Steel mill products

● **33100—COSTA RICA**—5,000 ft. galvanized wire rope. Tender No. T43; no bid deadline indicated. Ricardo Cox, Iproveedor Japdeva, Apartado T, Limon. Details available at above address. Merchandise urgently needed.

● **33100—INDIA**—400 mt. tramway rails. Tender No. S/37/76/GT; bid deadline Sept. 15. Office of Controller of Stores, Metropolitan Transport Project, Mission Row, 3rd Floor, Calcutta 700001. Tender documents available at above address at RS 30 ($3.36).

Rolling, drawing, extruding of nonferrous metals

● **33570 — YUGOSLAVIA** — Ponuda Za Kabel, Jugoslovenski, Naftavod, Radnick Dol 50 (SOBA4) 41000, Zagreb, has issued tender no. Sluzbeni List 31 for supply of cable and equipment for functional telecommunications network for Yugoslav oil pipeline. Bid deadline Sept. 22. Tender documents, U.S. $200 per set, must be picked up in Zagreb. U.S. Consulate, Zrinjevac 13, 41000 Zagreb, (Tel. 444-800), can assist potential bidders.

Metal stampings

3469948 — CHILE — Porcelain-enameled hospital utensils. Interested in turn-key operation to equip new military hospital of Santiago. Total value of project est.

$8,000,000, of which about 50 percent represents imported equip. Call or cable—Miguel Yoma, Mgr., Prodimex Ltda, Agustinas 715, 8 Piso, Santiago. Tel. 396031.

Fabricated metal products

3497132—GERMANY—Aluminum foil for packing food, household use. W. Berlin importer & distr. of packaging equip. seeks import of above for W. Berlin market. Quote c.i.f. European port if possible. Reply to—Herrn Hirschfeld, Begro GmBH & Co., Ringbahnstr. 22-30, 1000 Berlin 42. Tel. (030) 75-21-081.

Engines, turbines

• **35100, 36200—ECUADOR** — U.S. firms wishing to participate in future foreign government tenders in Ecuador, for the following equipment, must have a local agent or representative. Those without a representative contact the nearest U.S. Department of Commerce District Office. 1) Managing Director, Empresa Electrica, Quito, announced a government tender would soon be issued for an additional 25 megawatt gas turbine generator, to be installed near Quito at Guangopolo. 2) Head of the Foreign Loan Department of Instituto Ecuatoriano de Electrificacion (INECEL) reports that INECEL or its subsidiary Empresa Electrica Manta will soon be soliciting tenders for two 5-megawatt diesel generating units.

Farm machinery

35230, 35890—IRAN—Supply of composting machinery for use in several Iranian cities. Capacity of 50-300 tpd. Suppliers should write directly to: Mohsen Zahedi, Managing Director, The Classification Organization of Iran, 48 Mohajer St., N. Iranshahr Ave., Tehran. Tel: 823197. Telex: 212982. Cable: Radenbahni, Iran.

Metalworking machinery

• **35400, 35700, 37100—HONDURAS**—Leonidas Rosa, Proveedor General, Proveeduria General De La Republica, Aportado Postal 177, Tegucigalpa, D.C., has issued tender no. 26-76 for supply of office equipment, movie sound projectors, dressmakers supplies, agricultural supplies, drawing materials, audio-visual supplies, cafeteria equipment, school buses, vocational training supplies, all for use in schools. Bid deadline Oct. 1. Copy of specifications available from above address for 30 lempiras ($15).

Special industrial machinery

• **35590—TURKEY**—Supply and erection of composite turnkey fertilizer plant to be integrated with existing plant at Iskenderun for production of 320,000 tons/year. Bid deadline Sept. 30. Bidding specs. in English available for 1,500 TL (16 TL = U.S. $1, approx. $94 total.) Total value not known. Write to: Gubre Fabrikalari A.S., Buyukdeere Caddesi 1:0, Mecidiyekoy, Istanbul.

• **35595 — TURKEY** — Government requests bids on shoe making machinery: 1 automatic pulling over machine; 1 outsole stitching machine; 1 automatic upper lacing machine; 4 toe and heel lasting machines; 1 electro-hydraulic, two-station rubber sole and leather cementing press; 1 rough rounding and channelling machine. Tender number 489/01/T0132. Option: min. four months. Delivery: To be quoted in Tender. Shorter deliveries preferable. Prices: f.o.b. Istanbul. Payment: L/C. Bidding documents in English from Modern Translation Bureau, Karanfil Sokak 36/7, Yenisehir, Ankara, for $8.50—reference #8097. Check should accompany document order. Submit bids to Mill I Savunma Bakanligi, Tedarik Dairesi Baskanligi, Ankara, (Ministry of Defense). Bid deadline Sept. 13.

General industrial machinery

• **35690—KENYA**—Supply and delivery of two bandscreens for intakes to the raw water pumping station on the Sabaki River (about 40 km. W. of Malindi) and provision of an engineer to check erection of and to commission the plant. Bid deadline Sept. 21. Each bandscreen will be required to pass flows of up to 3,600 M3/hr. Tender documents available from Director of Water Development, Ministry of Water Development, P.O. Box 30521, Nairobi, at K. SH. 500 (approx. $70 U.S.) payable in Kenyan currency to Director of Water Supply. Tenderers must satisfy the Ministry of their ability to complete the projects. Tender deposits will be refunded on receipt of valid and complete tender or upon disqualification of bidder. Ref.: Contract MCS/4.

Household appliances

• **36360 — TURKEY** — Government requests bids on sewing machines: 2 two-needle, flatbed machines; 2 single-needle, lockstitch machines; 6 complete automatic buttonholers; 5 two-arm chainstitch sewing machines; 3 automatic bartacking machines; 5 automatic single-thread, chainstitch button sewing machines; 2 automatic lockstitch shirt buttonholers; 8 four-needle lockstitch machines; 3 zig-zag flatbed machines; 6 sack-side machines. Tender number 489/01/T0132. Option: min. four months. Delivery: To be quoted in Tender. Shorter deliveries preferable. Prices: f.o.b. Istanbul. Payment: L/C. Bidding documents in English from Modern Translation Bureau, Karanfil Sokak 36/7, Yenisehir, Ankara, for $8.50—reference #8097. Check should accompany document order. Submit bids to Mill I Savunma Bakanligi, Tedarik Dairesi Baskanligi, Ankara, (Ministry of Defense). Deadline Sept. 13.

Electrical lighting, wiring equipment

• **36480—INDIA**—Purchase Officer, Coal India, Ltd., Purchase Dept., 15 Park St., Calcutta 700016, has issued tender no. CIL/C-2(D)/Flame Safety Lamp/1976/JRD (Global) for supply of 300 top feed flame safety lamps for use in underground mines. Bid deadline Oct. 12. Copy of specifications available from address above at Rs 15 (US $1.69) per set.

Communications equipment

• **36610 — BRAZIL** — Furnas—Centrais Electricas, S.A., Directoria de Contratos E Suprimentos, Rua Real Grandeza, 219—10 Andar 20000 Rio de Janiero, has issued tender no. IMP-6862 for supply of telephone switchboards and auxiliary equipment for Itumbiara load-dispatch communications system. Copy of specifications available from above address at CR 1,000 (approx. U.S. $100) per set.

• **36610—TONGA**—Kingdom of Tonga, c/o Preece Cardew & Rider, Paston House, 165/7 Preston Road, Brighton, BN1, 6AF, England has issued tender no. TBU-001 for supply of telephone instruments. Bid deadline Sept. 15. Copy of specs. available from address above.

• **36620—BOLIVIA**—Eduardo La Faye, Gerente General, Empresa Nacional de Television, Casilla 900, La Paz, has issued tender for supply of one compact mobile unit for TV transmission, black & white, 625 lines, 50 cycles, 220 volts with helicodal and transversal recorder, microwave connection, monitors, video table, audio table, two cameras with accessories, camera controls, and generator set. Should be equipped for mountain terrain, with standard transmission, heavy-duty shocks, and illumination system. Send sales literature and specifications to Senor La Faye at above address.

• **36620—CYPRUS**—Chief Engineer, Cyprus Telecommunications Authority, Hadjikyriakos Bldg., 4th floor, 121 Prodromos Ave., P.O. Box 4929, Nicosia, has issued tender no. AT12/76 for supply and factory testing of UHF radio and multiplex equipment to establish communication between Nicosia - Paralimni (38 miles) and Nicosia-Klirou (15 miles). Equipment will operate in the UHF band 400-470 MHZ with an RF input and output impedance of 50 ohms. Specifications available from above address at 6 Cyprus pounds (U.S. $15) for two sets.

• **36620—INDIA**—Director General, Posts and Telegraphs, MMD Section, Parliament St., New Delhi 110001 has issued tender no. 12-141/76 MMD for supply of two sets automatic receiving equipment for radio telephone alarm system. Also, tender no. 12-143/76 MMD for supply of 50 sets of 30-channel pulse code modulations systems, bid deadline Oct. 4. Copy of specifications for either tender available at U.S. $2.74 per set from Assistant Director General (Imports), Room 514, address above.

Instruments for measurement, analysis and control

• **38240 — AFGHANISTAN** — President, Central Authority for Water Supply and Sewage, Nadir Shah Mina, Kabul, has issued tender no. IDA Credit 563AF, Contract Number 10, for supply of 10,780 water meters, sizes 15 to 50mm, plus spare parts and personnel training. Bid deadline Oct. 23. Copy of specifications available from above address for AFS 2,500 (about US $50).

• **38250 — THAILAND** — Purchases & Stores Dept., Metropolitan Electricity Authority (MEA), 121 Chakpetch St., Bangkok, has issued tender no. ADB-MEA 309 for supply of 8,000 watt-hour meters, 3-phase, 4-wire 220/380 volts, 50 cycle, A.C. Bid deadline Oct. 19. Copy of specifications available from address above at U.S. $5 per set.

38213XX—BELGIUM—Pressure & temperature control apparatus; solids control equip. Dir. sale & agency. Engineering firm with technical specialties for chemical, petrochemical, petroleum & all related industries. Clients are in Benelux, E. Bloc, Germany, S. Africa. Reply to—C. J. Bergmans, Mng. Dir., Tarcobel N.V., Lambrechtshoekenlaan 171, 2060 Merksem. Tel 031/460968; telex 34231.

• **38250—PARAGUAY**—Division de Acquisiciones, ANDE Departamento de Licitaciones, Calle Padre Cardozo, 560, Asuncion, has issued tender no. 125/76 for supply of AC Watt-Hour meters, single phase, 220 V, as follows: 10,000 with range 5-20 A; 4,000 with range 10-40 A; 1,000 with range 15-60A. Bid deadline Sept. 14. Estimated total cost U.S. $150,000. Bids should be submitted through local agent registered with ANDE. Copy of specifications available from above address for guaranies 3,150 (U.S. $25).

Optical instruments, lenses

• **3832120—YUGOSLAVIA**—One nuclear magnetic resonance spectrometer with ability to work with protons H1 & C13 to be used for organic chemistry analyses. Bids should be submitted in 5 copies in sealed envelopes carrying the mark "Za Licitaciju" by Sept. 22. Bids should contain technical description, brochures, guaranty conditions, spare parts supply possibility, prices, conditions for payment in cash & crediting terms. Reply to—Mrs. Djurdja Krajac, Import Div., Jugosanitarija, Export-Import, Amruseva 6, 41000 Zagreb. Cable Jugosanitarija; telex 21445 Yu San Zc; tel. 413-066.

• **38320 — TURKEY** — Milli Sarunma Bakanligi, Tedarik Dairesi Baskanligi, Ankara, has issued tender for supply of 500 pocket-type and 200 mirror-type stereoscopes for evaluation of aerial photographs. Stereoscopes should be equivalent to Federal Stock No. 6671-641-3561 and 6675-641-3558 or equivalent. Bid deadline Sept. 17. Copy of specifications available at US $6 from Modern Translation Bureau, Karanfil Sokak 36/7, Yenischir, Ankara. Document reference number is 8122.

Photographic equipment, supplies

• **38610—SRI LANKA** — S. Aludeniya, General Manager, Sri Lanka State Trading (General) Corp., P.O. Box 1686, 119 Wekande Rd., Columbo 2, has issued tender no. TQ8/76/10 for supply of medical and dental x-ray film, chemicals and paper. Bid deadline Sept. 21. Estimated value of products to be purchased is about U.S. $226,000. Copy of specifications available from address above.

• **38640—TURKEY** — Directeur General, Office National de l'Eau Potable (ONEP), B. P. Rabat-Chella, has issued tender no. 1/DP/T/76 for supply of 19,290 water meters, with spare parts and repair and calibration equipment. Bid deadline Oct. 6. Copy of specifications available free from Division Exploitation, Bureau des Marches, D.P., ONEP, Quartier Administratif, Rabat.

Scrap materials

5093XXX—GREECE—Scrap metals. Ship broker specializing scrap metal from ship demolition. Interested in vessels of all sizes, preferably military surplus, for demolition & scrap use or possible conversion for commercial use. Preparer for imediate purchase of vessels for demolition at cost of up to $1 million. Costs for vessels for conversion will depend on size & condition. Reply to—Capt. Andrew Vomvoyiannis, Mng. Dir., Maritime Organization Center, 8 Naieon St. (Hilton), Athens 516. Telex 21-6403; tel 726-209.

5093XXX—JAPAN—Ferrous scrap, of heavy melting grade no. 1 and no. 2. Steel scrap for rerolling and cast iron scrap also required. Importer plans import about 30,000 MT/yr. in two or three lots. Imported scrap will be stored at Japanese warehouses in Osaka or Kobe and re-exported to S. Korea in shipments of 2,000-3,000 mt/lot. Trading firm established in 1954; employs 10. Exports ferrous scrap, plastic scrap, used construction machines, ladies' accessories, primarily to Asian countries, and imports and distributes leather goods. Reply to—Satoshi Saito, Gnl. Mgr., Trading Dept., Tomiya Shoji Co., Ltd., 3-18-16 Motoasakusa, Daito-ku, Tokyo 111. Cable Tomiyacomer Tokyo; phone 03-842-9151.

Representations

Foreign private firms are interested in agency agreements and/or distributorships for these products.

Floor covering mills, products

2279074—AUSTRALIA — Tufted and/or needle-punched, printed carpet tiles. Excl. distr. Co. covers Australia. WTDR in prep. Reply to—R. J. Allen, Sales Mgr., Neuchatel Contraction Co. (N.S.W.) Pty. Ltd., 782 Bourke St., Waterloo, N.S.W. 2017. Tel. 698-2411.

Women's, misses, juniors' outerwear

23393XX—NORWAY — Casual slacks, jeans & other typical women's, misses' & junior outerwear. Estb. 1976 as agent-importer of electronic watches, marketed through several clothing retail stores. Firm sees additional market for U.S. mfrd. outerwear for teenagers. Employs 12, sales 5. Write or call—Thorstein Berg, Benova A/S, Schultzgate 5, Oslo 3. Phone 02-465863.

Plastic products

3079071 — SWITZERLAND — Commercial plastics products for use in restaurant kitchens & snack bars—vegetable bins, etc. Market territory all Switz. Provides adequate post-sales service. Employs 25 with 6 salesmen. Recommended trade contact. Excl. rep. Reply to Theo Kneubuhler, Theo Kneubuhler & Co., Hirschmattstrasse 50, Ch-6002 Luzern. Cable Tekomp Luzern; tel 041/22 10 22.

Glass, glassware

3229237 — BOLIVIA — Interior lighting glassware. Correspond in Spanish. Reply to Jorge Tarabillo, Casilla 864, Santa Cruz. Cable Galta.

Pottery, related products

3261051—UNITED KINGDOM — China & earthenware, plumbing acces. & fittings. U.K. market leader of quilts, pillows & sleeping bags, with interests in mfg. & installation aluminum double glazing window frame units. Markets throughout U.K. mail order; retail & "shop within shop" outlets. Successful growth record & know-how in textiles & light engineering. Seeks diversification into above products. Also interested in joint venture & mfg. under license. Employs 350, incl. 9 salesmen & 60 shop personnel. Reply to—T. W. L. Kay, Mng. Dir., Fios Group Ltd., Greendykes Industrial Estate, Broxburn, W. Lothian, Scotland. Tel (050-685) 4811; telex 727102.

Fabricated structural metal products

3444698—IRELAND — Copper canopies for fireplaces, cookers, etc. Mfg. of light engineering products & interested in acquiring agencies for decorative copper canopies for sale to builders' suppliers. Formed 1975. Field staff 2. Reply to—P. M. Cawley, Mgr.-Dir., Glamcopp Enterprises Ltd., Ballymore, Craughwell, Co. Galway. Tel. 66834.

Special industrial machinery

3559589—THAILAND — Machinery to produce photo-albums, stencil sheets, carbon paper, pencils, ballpoint pens, staples, paper clips & typewriter ribbons. Requests c.i.f. prices, catalogs & general info. Reply to Liang Chaiwatanatorn, Mng. Dir., Chaiwatana Mfg. Co. Ltd., 895/59 Soi 3, Behind EGG Center, Patumwan, Bangkok. Cable Chaiwatana, Bangkok; tel 2520529.

Household appliances

36341XX—THAILAND—Electric fans, all types. Requests c.i.f. prices, catalogs & general info. Reply to—Liang Chaiwatanatorn, Mng. Dir., Chaiwatana Mfg. Co. Ltd., 895/59 Soi 3, Behind EGG Center, Patumwan, Bangkok. Cable Chaiwatana, Bangkok; tel 2520529.

36342XX—FRANCE—Electric razors & dry-shavers. Recently created as importer & distr. of household appliances, as well as hi-fi & radio-tv equip. Wants to extend sales organization gradually to all of France. Reply to—Mr. Bitton, Gen. Mgr., Croselec, 17 Rue Dobernai, 67000 Strasbourg. Tel 88-32.68.99.

Radio, television receiving sets

3651420—NETHERLANDS — Hi-fi equip. Est. 1925, staff 70. Bankers Amro Bank N.V., Weesp, Neth. Subsidiary of Geo. C. F. Kauderer Holding BV, located same address. Other subsidiaries are Amutronics BV, Muiden, de Muiderkring BV, Bussum, Amroh-Kauderer GmBH, Neuss, W. Germany. Moderate open account trading warranted. Reply to—F. Aland, Mgr., Amroh B.V., 76 Herengracht, Muiden, Netherlands. Cable Amroh; telex 15171; tel 02942/1951. Excl. agency and/or distr.

3651567—FRANCE — Home-type electronic kits to be assembled by consumer for radio receivers, tuners, amplifiers & other audio equip. Recently created as importer & distr. of household appliances, as well as hi-fi & radio-tv equip. Wishes to expand range of products by importing as distr. & possibly as agent. Reply to—Mr. Bitton, Gen. Mgr., Croselec, 17 Rue Dobernai, 67000 Strasbourg. Tel 88-32.68.99.

Electronic components, accessories

367907X — GERMANY — Waveguides. Estab. 1965, fully owned sub. of Telonic Industries, Inc., Laguna Beach, Calif. Annual sales DM 2 million. Reply to—Horst Schlechter, Mgr., Telonic Industries GmBH, Alte Heerstrasse 31, 5400 Koblenz. Telex 08 624 77; tel 026-76081.

Electrical machinery, equipment, supplies

3699221—BOLIVIA—Electric lamp components. Also, wire & cord for electrical purposes. Correspond in Spanish. Reply to—Galta Ltda, Jorge Tarabillo, Casilla 864, Santa Cruz. Cable Galta.

Engineering, laboratory, scientific, research instruments

3811XXX, 38213XX—BELGIUM — Environmental testing equipment; gas analysis equipment: gas detection and measuring equipment; conductance measuring equipment. This trade opportunity was obtained incidental to U.S. Petrochemical Catalog Show at Antwerp, June 16. Corporation is importer-exporter of measuring & controlling instruments. Also producer of industrial safety devices, fire prevention equipment. 200 employees. Reliable firm. Reply to—B. J. Reyntjens, Mgr., Technical-Commercial Services N.V. Vandeputte, Provincieesteenweg 160-172, 2530 Boechout. Phone:

031/555 15 1; telex: 33808; cable: Safety-van Broechout.

3811341 — NETHERLANDS — Photogrammetic & geodetic equip. Rep. or lic. agreement for Benelux. Estab. 1902, employs 50. Operates own workshop & mfrs. marking & labeling devices, geodetic & medical equip. Has excellent facilities for after-sales service. Recommended as trading partner. Reply to—R. Kurvers, De Koningh B.V., Simon Stevinweg 48 or P.O. Box 347, Arnhem. Tel 085-629019; telex 45830.

Manufacturing industries

3996061—AUSTRALIA—Vinyl floor covering in sheet form; must be 9 to 12 ft. wide. Co. covers Australia. WTDR in prep. Reply to—R. J. Allen, Sales Mgr., Neuchatel Contraction Co. (N.S.W.) Pty. Ltd., 782 Bourke St., Waterloo, N.S.W. 2017. Tel 698 2411. Excl. distr.

UNDP Country Programs Approved; Copies Available

At its 22nd session in June, the Governing Council of the United Nations Development Program approved Country Programs for Brazil, Bulgaria, Jordan, Nicaragua, Panama, Venezuela and Zaire. The programs are 2 to 5-year plans for projects for which the country requests assistance from UNDP. Projects are identified in the report and later emerge as individual trade opportunities.

The Export Information Reference Room of the U.S. Department of Commerce has a limited number of copies of these Country Program reports, available on a loan basis only. To borrow any of the seven reports, send a self-addressed label with request to the Export Information Reference Room, Attn: Betty W. Patrick, Office of Export Development, Room 1063, U.S. Department of Commerce, Washington, D.C. 20230. Copies are also available for review at Commerce District Offices in Atlanta, Boston, Chicago, Cleveland, Dallas, Denver, Detroit, Houston, Indianapolis, Los Angeles, New York, St. Louis, San Francisco and Seattle.

Firms and organizations interested in pursuing UNDP projects are urged to subscribe to *UNDP Business Bulletin*, a free monthly publication that announces project opportunities in connection with subcontracting and equipment procurement. Write The Editor, UNDP Business Bulletin, 345 East 46th St., New York, N.Y. 10017. Also available is *UNDP Business Guide*, which explains how to participate in UNDP project activities; the latter may also be obtained from Commerce's Export Information Reference Room.

Japan To Host Engineers

The Tenth Congress of the International Association for Bridge and Structural Engineering, the leading international association in structural engineering, will be held in Tokyo Sept. 6-11. This year's Congress will be the first held in Asia, and the sponsors are seeking to attract as many visitors from abroad as possible.

The Congress will feature exhibitions, films, and technical sessions. Prospective attendees are requested to contact the Secretariat of the International Association for Bridge and Structural Engineering, ETH-Hoenggerberg, CH-8093 Zurich, Switzerland.

Iran Considers Purchasing U.S. Mobile Training Units

The Ministry of Labor and Social Affairs, Imperial Government of Iran, is considering purchasing in the United States a number of self-contained and fully-equipped mobile units for use as centers for intensive training in vocational skills.

Mobile training units for training in skills such as automotive mechanics, electro-mechanics, machine trades, and construction trades may be required. Vendors shall additionally supply all training hardware and software, including instructional aids and audio-visual equipment, and shall provide training (in the U.S.) to teams of Iranian instructors in the assembly, operation, and maintenance of training hardware and instructional equipment. However, vendors will not be required to offer "teacher training" (pedagogical skills) as such.

Initially, the Government of Iran plans to select one or more firms from which it will purchase several units each. The selection of a firm or firms from which additional units may be purchased in the future will be competitively and objectively based on the relative quality of contractor services and on the on-line performance of their mobile units.

Companies interested in receiving prequalification information should contact: Dr. Everett R. Warzecha, 2 Sun Life Park, 100 Worcester St., Wellesley Hills, Mass. 02181, tel. 617-235-7020.

Romania Sets Bid Dates On Hydro-Power Project

The IBRD has granted Romania a U.S. $50 million loan for purchasing materials and equipment for the Ruil Mare-Retezat hydro-power project. The project includes a dam, two 167.5MW generating sets, and two 7MW generating sets.

The materials and equipment still to be supplied and dates of the tender opening follow: construction equipment, second stage—Sept. 22; power transformers—Nov. 10; steel for tunnel linings—Dec. 15; electrical equipment for primary and secondary commutation—Feb. 4, 1977; automation and remote control equipment—Feb. 9, 1977; mechanical equipment for dams and secondary intakes—Jan. 12, 1977; turbines and generators—Jan. 19, 1977; dam monitoring instruments—Jan. 26, 1977.

Bidding documents can be obtained for a fee from Mrs. Mariana Giosanu, Romenergo, Boulevard U. Lacul Tei, WR One Bucharest, telephone 12-13-26, telex 011525.

Future Construction Abroad

The Overseas Private Investment Corp. (OPIC) offers political risk insurance to U.S. construction firms planning to submit bids on projects in certain developing countries, identified by the "OPIC" notation at the end of some items. For further information on OPIC's construction insurance program, write Information Officer, Overseas Private Investment Corp., Washington, D.C. 20527. Tel: 202-632-1854.

BRAZIL—The government has expressed desire for U.S. direct investment, technology and capital equipment and has provided a list of projects in which participation would be welcome. Projects include: **mining; electric power; petrochemical and fertilizers; non-ferrous metals, and steel mills.** The list of projects is available from U.S. Dept. of Commerce, TOP, Rm 2321, Washington, D.C. 20230, 202-377-2251. OPIC.

INDIA—IDA has approved an $18 million line of credit to finance an **integrated cotton development project.** Total area of 183,000 hectares in three representative Indian cotton-growing areas of Haryana, Punjab and Maharashtra. Includes evolvement of new cotton varieties; breeding and multiplication of improved seeds; modernization of cotton seed ginning and processing facilities; adoption of improved insect and disease control measures. Total cost is $36 million including foreign exchange component of about $13 million. While a breakdown of foreign exchange expenses is not available, a small portion is proposed to be utilized for importation of high-wheel tractor sprayers, baling presses, acid delinting equipment for cotton seed processing, ginning machines and laboratory apparatus. Specifications of above machinery and equipment have not yet been determined. Import will likely be made by contacting foreign suppliers either directly or through local agents. Project will be jointly implemented by State Department of Agriculture, Agricultural Universities, India Council of Agricultural Research and Ministry of Agriculture. Official responsible for project coordination is Dr. V. M. Sahani, Joint Commissioner (Cotton), Rm NBR 29, Krishi Bhavan, Dr. Rajendra Prasad Rd., New Delhi 110001. Dr. Sahani specifically requests product literature and catalogs from U.S. firms specializing in manufacture of high-wheel tractor sprayers. OPIC.

INDIA—G. S. Harnal, Managing Director, Assam Petrochemicals Ltd. (APCL), is interested in locating a supplier of technology and equipment for local **manufacture of melamine.** APCL has received preliminary government approval for annual production of 5,000 metric tons LK melamine, and official clearance for foreign collaboration has also been obtained. Total cost of project estimated at RS. 105 million, of which foreign exchange component expected to be RS 35 million. Harnal prefers U.S. technology for closed cycle or total recycle process based on urea (not "once through" process for urea complex). By total recycle process he means off-gases discharged from melamine synthesis section converted into urea in small urea synthesis reactor integrated with melamine plant and fed back to melamine reactor. U.S. partner willing to supply technology and equipment for manufacture of melamine in Namrup Factory should contact G. S. Harnal, Managing Director, Assam Petrochemicals Ltd., Namrup 786621, Assam, or Assam Industrial Development Corp. Ltd., Zoo Rd., Gauhati 781001, Assam. OPIC.

GERMANY—One of Germany's largest department store chains, Karstadt A.G.,

is planning to construct a new **shopping complex** in West Berlin. The new store will be located in the city's northern district of Wedding in the French Sector near Tegel Airport. Construction is to begin in fall 1976 or early 1977. Estimated cost is $20 million. Will cover area approx. 13,000 sq. meters, and will be started from the ground up. Hoped that store will be open for business by 1978. Will require wide spectrum of building materials, supplies and interior furnishings over next two years. Examples are insulation, air-conditioning and heating systems, wall and floor coverings, light fixtures, movable interior walls, display cases, elevators and escalators and normal department store supplies. Metric specs. are preferable and all electrical equipment must meet European specs. of at least 220 volts, 50 hertz. Interested U.S. bidders and suppliers can contact procurement director at: Herr Direktor Hoseid, Karstadt A.G., Hauptverwaltung/ Bauabteilung, Theodore-Althof-Strasse 1, 4000 Duesseldorf, Tel. (0211)-727-20-53; Telex 08-57-97-51. Communications on the West Berlin aspects, such as details on the site, can be directed to: Herr Guenther Burkert, Gen. Mgr., Karstadt A.G., Schloss-Strasse 7-10, 1 Berlin-Steglitz 41, Tel. (030)-79-10-51. Herr Burkert stated that the West Berlin management would very much welcome U.S. bids on all aspects of project.

ALGERIA—State Feed Monopoly is seeking qualified firms for construction of **ten centers for raising 50,000 hens per year each** (Tender #A0 11-76) and **five centers for egg production with starting capacity of 100,000 laying hens per year each** (Tender #A0-10-76). French tender documents can be obtained, at $24.17 each, from: Direction des Etudes et Realization, ONAB, 26 Blvd. Zirout Youcef, Algiers; Cable: ONAB ALGIERS; Tel: 52913. All correspondence must be in French. Deadline for submitting bids is Sept. 30. For additional information contact Pete Zantal, CAGNE/BIC, U.S. Department of Commerce, Washington, D.C., 20230, 202-377-4441. Also, please send copies of all correspondence to Pete Zantal.

MOROCCO—Ministry of Agriculture and Agricultural Reform is seeking qualified firms for preselection concerning a **feasibility study and studies for equipment relating to the Doukkala "Haut Service" irrigated perimeter** (approximate area 40,000 hectares). Water to be supplied from the existing Im Fout Diversion Dam on Oum er R'Bia River. Study will serve as a preliminary plan for development and must economically justify project. Send prequalification statements to: Office Regional de Mise en Valeur Agricole des Doukkala, Bureau des Marches, P.P. 58, El Jadida, Morocco. Correspondence preferred in French. Closing date for submittal is Sept. 15. For additional information contact Pete Zantal, CAGNE/BIC, U.S. Department of Commerce, Washington, D.C., 20230, 202-377-4441. Also, please send copy of all correspondence to Pete Zantal.

SYRIA—Egyptian consulting firm is seeking U.S. firms wishing to bid on **highway construction project** in Syria, to be four-lane highway with total width of 34 meters and five interchanges, to have design speed of 120-140 km/hr and asphalt roadway. Excavation is estimated at 9.5 million cubic meters. Interested firms contact: Amer Al Rustom, El Borque Trading Organization, 78 Gomhouria St., P.O. Box 1577, Cairo; telex: 2365 ALFCAI - UN, EXT 077 EGS; Phone; 912930-910462. Please send copy of all correspondence to: Pete Zantal, CAGNE/BIC, U.S. Dept. of Commerce, Washington, D.C., 20230, 202-377-4441.

ALGERIA—State hydrocarbons and petrochemical monopoly, SONATRACH, is inviting offers for **extension of Hassi R'mel-Arzew gas pipeline number 40.** Will include construction of five compressor stations. Tender document (in French) may be obtained from: Direction Engineering Central, SONATRACH, 10 Rue du Sahara, Hydra, Algiers; Cable: SONEC DZ ALGER; Telex: 52375. A copy may be available in the office of Ms. Cherie Loustaunau, CAGNE/BIC, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-4441. Deadline for submitting offers is Oct. 1.

SAUDI ARABIA—Lebanese firm is seeking U.S. companies capable of supply and construction of **plant for freezing, rendering and processing 100,000-150,000 carcasses.** Plant must have high capacity in that animals are slaughtered in a 72-hour period. Ror additional information contact Pete Zantal, CAGNE/BIC, Washington, D.C., 20230, 202-377-4441.

Important Notice

Most member countries of the League of Arab States employ a secondary boycott against foreign firms which undertake certain specific types of business relationships with the State of Israel. The Commerce Department will not disseminate or make available for inspection any tenders or trade opportunity documents which contain conditions intended to support such boycotts, or which are based on documents known to contain such provisions. Trade or investment opportunities published herein are not presently known to be subject to such conditions. However, it is possible that U.S. firms responding to opportunities from Arab countries may be asked at some stage of a transaction to participate in an Arab boycott-related restrictive trade practice as defined in the Department's Export Administration Regulations (15 CFR, Part 369 et. seq.).

Firms are reminded that pursuant to Section 3(5) of the Export Administration Act of 1969, as amended, it is the policy of the United States (a) to oppose restrictive trade practices or boycotts fostered or imposed by foreign countries against other countries friendly to the United States, and (b) to encourage and request U.S. concerns engaged in the export of articles, materials, supplies, or information to refuse to take any action, including the furnishing of information or the signing of agreements, which has the effect of furthering or supporting such restrictive trade practices or boycotts. Accordingly, U.S. concerns receiving such requests to participate in a restrictive trade practice or boycott are encouraged and requested to refuse to comply with them.

Firms are further reminded that U.S. concerns receiving requests to participate in a restrictive trade practice or boycott must report such receipt to the Department of Commerce in accordance with Section 369.4 of the above-cited regulations.

Visiting Buyers & Officials

SWEDEN—Anders Magnusson of BM Import, Luthagsesplanden 9-A, S-75225 Uppsala, is interested in agency agreements for **ready-made clothes for men, women and teenagers,** particularly sports clothes, jeans, and leisure time clothes. He is also interested in **small electric kitchen and household appliances.** Magnusson will be in Los Angeles through Sept. 1. His U.S. mailing address is c/o Ernst Shima, 14810 Parron Ave., Gardena, Calif. 90249. He may be contacted there, in Sweden or through Terry Rettig, Foreign Buyer Program, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-3265.

SOUTH AFRICA—J. F. Collett, Managing Director, CKF Instruments and Electronics (PTY), Ltd., Johannesburg, is visiting the U.S. for a month beginning in mid-August. He is seeking sources for **UHF/VHF equipment** covering: low band 30-50 MHZ; high band 148-174 MHZ; UHF 450-470 MHZ. The equipment should be frequency modulated in above bands and have power outputs of 25-30 watts and meet E.I.A. specs. Collett is also interested in equipment in the 27-29 MHZ regions similar to U.S. citizen band ranges as well as equipment for professional users such as South African post offices, railways, etc. The equipment should be single sideband in the region 2-16 MHZ, preferably solid state with power output in the region 50-100 P.E.P. and should also be wideband aperiodic in output stages. He may be contacted through Terry Rettig, 202-377-3265.

AUSTRALIA—Peter B. Fowler, Manager, Compass International S.A., Sydney, is in the U.S. during August to seek new sources of quenched and tempered **steel plate** of 360-525 BNH hardness. He prefers to deal with producers rather than brokers. He may be reached through Terry Rettig, 202-377-3265.

AUSTRALIA—Ted Ashcroft, Director of Civil and Pipe Construction Pty. Ltd., Melbourne, is interested in establishing contacts for direct purchase and possibly an agency agreement for horizontal/ under-road **boring machines** of any diameter up to three feet and **concrete pumps** for concrete grouting operations. He is also interested in purchasing **new technology in horizontal boring, cable, main and pipe laying and associated work.** Ashcroft also wants to discuss **new methods of housing construction.** He would prefer to talk with firms in the Los Angeles, San Francisco and/or Houston areas but will travel to other cities if interest warrants. For further information contact Terry Rettig, 202-377-3265.

TANZANIA—Dr. K. H. Patel, Director, Twiga Paper Products Ltd., P.O. Box 20192, Dar Es Salaam, manufacturers of paper bags and corrugated cardboard boxes, is interested in purchasing **corrugating machines for cardboard.** He will be in the U.S. until late August. His U.S. address is c/o J. C. Patel, 514 Lingerwood Ave., Elizabeth, N.J. 07202; he may be contacted there or through Terry Rettig, 202-377-3265.

TAIWAN—James Chi, Sales Manager, Central Enterprise Corp., Taipei, will visit the United States to purchase U.S. new machinery and equipment for his firm's expansion. He seeks **machinery for PVC wire injection and cutting, and equipment to manufacture electric sockets and plugs.** In 1971 this company was incorporated with capital of $79,000 for the purpose of manufacturing electric cords and wires. Sales volume is U.S. $500,000 per year. This visitor may be contacted directly or through Frederica Parks, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-3265.

TAIWAN—Don and Paul Chen, Managers of Taimico Industries Inc., Taipei, will visit the U.S. to develop new agency and distributorship arrangements for the sale of American-made **instrumentation and high grade valves for laboratory, petroleum, and chemical use** in Taiwan. Taimico Industries Inc. was established in 1974 as importer and exporter of instrumentation and valves, and is capitalized at U.S. $25,000. Tentative itinerary is: Atlanta, Aug. 15-19; New York, Aug. 20-27; Salt Lake City, Aug. 30-Sept. 3; Los Angeles, Sept. 5-10. These buyers may be contacted directly in care of Charlie Lee, 5123 Ball Rd., Cypress, Calif., 90630, phone 714-821-3610, or through Bill Corfitzen, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-2068.

AUSTRALIA—B. G. Douglas, Technical Director, Marko International Pty., Ltd., 14 Pilcher St., Enfield, N.S.W. 2136, will arrive Los Angeles, Sept. 7, proceeding to Chicago Sept. 9, then flexible for 12 days. His interest is **household and personal safety equipment, marine hardware, swimming pool hardware and accessories, and small household appliances and hardware.** Company also has metal manufacturing facilities and would consider any licensing opportunity. Interested firms should contact Foreign Buyer Staff, U.S. Department of Commerce, Room 2322, Washington, D.C. 20230 for additional information.

IRAQ—Younathan E. Evan, Al Nidhal St., Tayaran Sq., Baghdad, plans to be in the U.S. for two or three months beginning the first of August. He would like to establish contacts with firms who manufacture **machinery for producing car cushion seats, insulating tapes, car dynamo armatures, hose clamps, disc brake pads and brake hoses for cars.** Interested firms should write him at Younathan E. Evan, c/o Harry Christensen, 6127 N. Springfield St., Chicago, Ill. 60659. For further information contact Terry Rettig, Foreign Buyer Program, Room 2322, U.S. Department of Commerce, Washington, D.C. 20230, 202-377-3265.

PAKISTAN—Mohammed Yaqub, Managing Director, Champion Paint Industries, Ltd., Al-Rehman Bldg., 65 Shahrah-E-Quaid-E-Azam, Lahore, Cable: Champaint, will be in the U.S., beginning Aug. 15, in the Denver area. He wants to purchase **machinery and equipment for a paint lab** as well as **raw materials for pigments and dry color, synthetic resins and solvents.** He may be contacted directly or through Terry Rettig, 202-377-3235.

ZAMBIA—Dante Saunders, a commission sales representative based in Lusaka, is interested in contacting suppliers of **ration food packs for military,** and **military uniforms, including socks, rain coats, etc.** He wants to be an agency representative on a commission basis. He plans to be in the U.S. for about 6 weeks beginning Aug. 28, and may be contacted through Terry Rettig, 202-377-3265.

MALAYSIA—N. H. Chew, Screendex International, 18 Road 10 Kepong Garden, Kuala Lumpur, Cable: Dexcreen, is interested in hearing from U.S. manufacturers of **promotional advertising items** such as key chains, ash trays, ball point pens, etc. He is also interested in distributing new-to-market products. He may be contacted directly or through Terry Rettig, 202-377-3265.

IRAN—E. L. Roshdiyet, President, IRWOT, P.O. Box 12/1619, Tehran, Cable 4311 Tehran, is interested in representing U.S. manufacturers of many products. He is especially interested in **anti-freeze, roofing and patching asphalt.** He would also consider **dairy and food products.** He may be reached directly or through Joseph Chini, 1506 Baylor Ave., Rockville, Md. 20805; 301-762-0221. Terry Rettig, 202-377-3265.

SWITZERLAND—Lucien Romang, President, Microtec Corp. and Microcrystal Corp., P.O. Box 5, 2416 Les Brenens, is interested in buying and/or representing in Switzerland and/or Europe **bonding and soldering equipment for microelectronics, epilame surface treatment equipment which prevents oil from creeping on metal surfaces, lapping machinery, pastes and abrasives for polishing of sapphire and other substrates, ceramic powders for manufacture of precision mechanical and electronic parts, precious stones for manufacture of jewelry watches.** Terry Rettig, 202-377-3265.

FINLAND—A Finnish manufacturer planning a visit to the U.S. this fall is interested in meeting producers of **systems for crushing glass for recycling.** All replies should be sent to Terry Rettig, address above.

HONDURAS—Gonzalo A. Rivera, representing Nacional Commercial S.A., a representation firm, will be in Miami area about Aug. 21 for a week. He wants to represent producers of **office and banking supplies, shelf hardware, auto parts and accessories, men's and women's shirts and blouses.** He may be reached through Terry Rettig, 202-377-3265.

Bolivians Inquire About Deep-Well Irrigation Equipment

The U.S. Embassy in La Paz, Bolivia has received an inquiry regarding deep-well irrigation methods for cotton and wheat. The Embassy is interested in receiving the names of manufacturers of equipment related to deep-well irrigation. Interested firms should contact Foreign Buyer Staff, U.S. Department of Commerce, Room 2322, Washington, D.C. 20230, 202-377-3265 for information.

Brussels Schedules Events

The Brussels International Trade Mart has scheduled seven "Market Weeks End 1976" events in September and November, showcasing furniture and ready-to-wear clothing. Information is available from Brussels International Trade Mart, Square de L'Atominium, B-1020 Brussels.

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Baltimore, 21202, 415 U.S. Customhouse, Gay and Lombard Sts. (301) 962-3560.

Birmingham, Ala., 35205, Suite 200-201. 908 S. 20th St. (205) 254-1331.

Boston, 02116, 10th Floor, 441 Stuart St. (617) 223-2312.

Buffalo, N.Y., 14202, Room 1312, Federal Bldg., 111 W. Huron St. (716) 842-3208.

Charleston, W.Va., 25301, 3000 New Federal Office Bldg., 500 Quarrier St. (304) 343-6181, Ext. 375.

Cheyenne, Wyo., 82001, 6022 O'Mahoney Federal Center, 2120 Capitol Ave. (307) 778-2220, Ext. 2151.

Chicago, 60603, Room 1406, Mid-Continental Plaza Bldg., 55 E. Monroe St. (312) 353-4450.

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Cleveland, 44114, Room 600, 666 Euclid Ave. (216) 522-4750.

Columbia, S.C., 29204, Forest Center, 2611 Forest Dr. (803) 765-5345.

Dallas, 75202, Room 7A5, 1100 Commerce St. (214) 749-1515.

Denver, 80202, Room 165, New Custom House, 19th and Stout Sts. (303) 837-3246.

Des Moines, Iowa, 50309, 609 Federal Bldg., 210 Walnut St. (515) 284-4222.

Detroit, 48226, 445 Federal Bldg., 231 W. Lafayette (313) 226-3650.

Greensboro, N.C. 27402, 203 Federal Bldg., W. Market St., P.O. Box 1950. (919) 378-5345.

Hartford, Conn., 06103, Room 610-B, Federal Office Bldg., 450 Main St. (203) 244-3530.

Honolulu, 96813, 286 Alexander Young Bldg., 1015 Bishop St. (808) 546-8694.

Houston, 77002, 1017 Old Federal Bldg., 201 Fannin St. (713) 226-4231.

Indianapolis, 46204, 357 U.S. Courthouse & Federal Office Bldg., 46 E. Ohio St. (317) 269-6214.

Los Angeles, 90049, Room 800, 11777 San Vicente Blvd. (213)824-7591

Memphis, 38103, Room 710, 147 Jefferson Ave. (901) 521-3213.

Miami, 33130, Rm. 821, City National Bank Bldg., 25 W. Flagler St. (305) 350-5267.

Milwaukee, 53202, 605 Federal Office Bldg., 517 E. Wisconsin Ave. (414) 224-3473.

Minneapolis, 55401, 218 Federal Bldg., 110 S. Fourth St. (612) 725-2133.

New Orleans, 70130, Room 432, International Trade Mart, 2 Canal St. (504) 589-6546.

New York, 10007, 37th Floor, Federal Office Bldg., 26 Federal Plaza, Foley Sq. (212) 264-0634.

Newark, N.J., 07102, Gateway Bldg. (4th floor) Market St. & Penn Plaza (201) 645-6214.

Omaha, Neb., 68102, 1815 Capitol Ave., Suite 703A (402) 221-3665.

Philadelphia, 19106, 9448 Federal Bldg., 600 Arch St. (215) 597-2850.

Phoenix, Ariz., 85004, 508 Greater Arizona Savings Bldg., 112 N. Central Ave. (602) 261-3285.

Pittsburgh, 15222, 2002 Federal Bldg., 1000 Liberty Ave. (412) 644-2850.

Portland, Ore., 97204, Room 618, 1220 S.W. Third Ave. (503) 221-3001.

Reno, Nev., 89502, 2028 Federal Bldg. 300 Booth St. (702) 784-5203.

Richmond, Va., 23240, 8010 Federal Bldg., 400 N. 8th St. (804) 782-2246.

St. Louis, 63105, 120 S. Central Ave. (314) 425-3302.

Salt Lake City, 84138, 1203 Federal Bldg., 125 S. State St. (801) 524-5116.

San Francisco, 94102, Federal Bldg., Box 36013, 450 Golden Gate Ave., (415) 556-5860.

San Juan, P.R., 00918, Room 659, Federal Bldg., Chardon Ave. (809) 763-6363, Ext. 555

Savannah, 31402, 235 U.S. Courthouse and Post Office Bldg., 125-29 Bull St. (912) 232-4321, Ext. 204.

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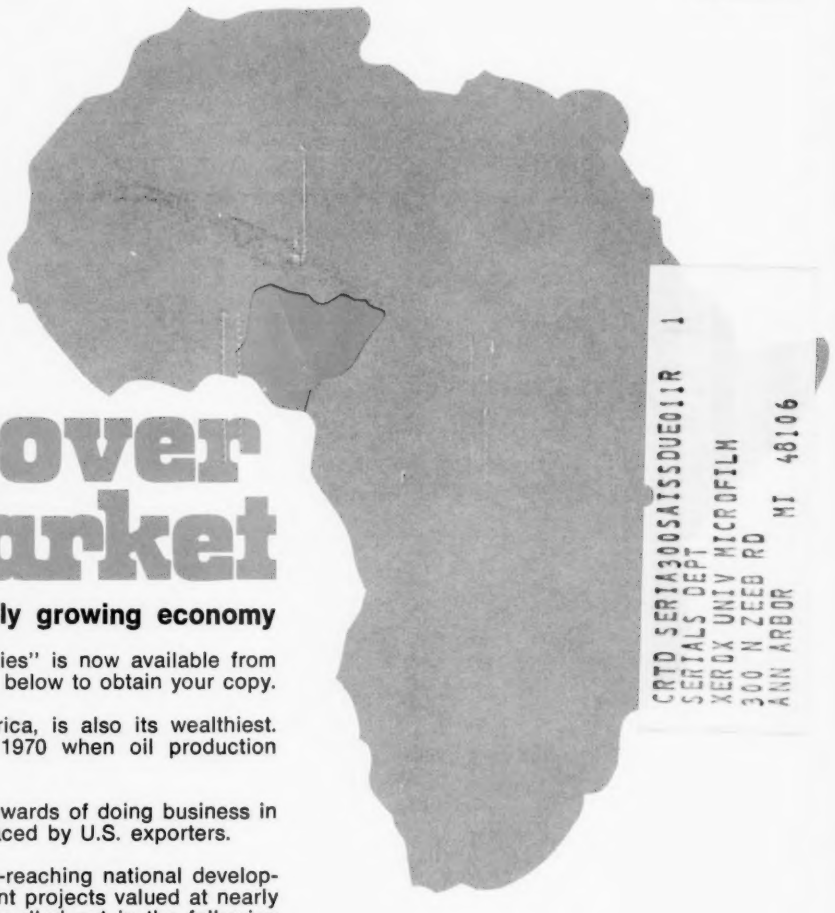

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